Cucamonga Vineyard Co., et al, Plaintiff

# In the Superior Court

OF THE

COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA.

DEPARTMENT ONE

Cucamonga Vineyard Co. et al.,

*Plaintiff*

*vs.*

San Antonio Water Co. et al.,

*Defendant*

No. Vol. 6.

HON. FRANK F. OSTER, Judge.

I. BENJAMIN, Official Reporter.

COUNSEL APPEARING:

For Plaintiff

For Defendant

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J. M. McKinley.

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

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| Cucamonga Vineyard Co. et al., Plaintiff<br>vs.<br>San Antonio Water Co. et al., Defendant | Vol. 36.<br>Tuesday March 23,1909. |

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I. BENJAMIN, Official Reporter

Tuesday, March 23, 1909. Thirty-sixth Day.

F. E. TRASK.

(CROSS EXAMINATION RESUMED.)

Mr. McKinley: There are a number of corrections that you find which you desire to make.

A These corrections only apply to the direct examination. I have not been able to go over the cross examination. I will commence with the record that was put in over a year ago.

Mr. Britt: When you were called as a witness for plaintiffs?

A Yes, sir. I have made no corrections in my testimony to any extent, and this morning I will take up corrections in all my testimony since the case began and bring it up to the time of the cross examination.

Mr. McKinley: Before you begin, my attention has been called to a typographical error on line 24 of page 2760 of the transcript. The words 1866 occurs with reference to the board of directors of the Cucamonga Land and Irrigation Company, and it should be 1895.

Mr. Stevens: Oh, yes.

Mr. McKinley: and it is stipulated that the officers and directors of the Cucamonga Vineyard Company from its organization in 1895 to the present time have been as follows:

Officers and Directors of

THE CUCAMONGA VINEYARD COMPANY

1895.

| Directors. | Officers. |
|---|---|
| Isaias W. Hellman | Isaias W. Hellman, President |
| Lewis P. Weil | Max Meyberg, Vice-President. |
| J. Downey Harvey | Gustav Heimann, Secretary |

Herman W. Hellman — Farmers & Merchants Bank
Gustav Heimann
Max Meyberg
Peter D. Martin

1896

The Same.

1897

The Same.

1898

The Same

1899

The Same

1900

The Same

1901

The Same

1902.

| Directors | Officers. |
| --- | --- |
| Isaias W. Hellman | Isaias W. Hellman President |
| Herman W. Hellman | Herman W. Hellman Vice-Prest. |
| Marco H. Hellman | Gustav Heimann Secretary |
| Gustav Heimann | Farmers & Merchants Bank Treasurer |
| J. Downey Harvey | |
| Peter D. Martin | |
| H. E. Dreyfus | |

1903

The Same

1904.

| Directors | Officers | |
|---|---|---|
| Isaias W. Hellman | Isaias W. Hellman | President |
| J. A. Graves | J. A. Graves | Vice- Pres |
| Gustav Heimann | Gustav Heimann | Secretary |
| E. B. Dreyfus | Farmers & Merchants Nat.Bnk | Treasurer. |
| J. Downey Harvey | | |
| Peter D. Martin | | |
| Leah Dreyfus | | |

1905-1906-1907-1908

The Same

1909

| Directors | Officers | |
|---|---|---|
| J. A. Graves | Isaias W. Hellman | President |
| T. H. Newlin | J. A. Graves | Vice Pres |
| John Alton | Gustav Heimann | Secretary |
| Gustav Heimann | Farmers & Merch.Nat.Bank | Treasurer |
| Isaias W. Hellman | | |
| J. Downey Harvey | | |
| Leah B. Dreyfus | | |

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The Witness: On page 84, line 10, the letter "S" should be changed to "B"; and in line 12, the capital letter "B" in quotations should be changed to "S" in quotations.

Page 89, line 4, t he figures in the tabulation in column 4, 1[illegible] should be crossed out and carried into the next column of the same date - should be carried into

column 5.

Mr Britt: As I have it here, they are partly in column 4 and partly in column 5.

A They should be in column 5.

Mr Britt: If you count the dates there they are mostly in column 5 now.

A They should be under the heading "Well 5".

Page 90, the last set of figures in line 14, I think the figures are written 1330.1. They should be 1330.1.

Mr Britt: It is 1330 in our copy here. 1330.5.

A That is line 13. The next line.

Q There it is 1330.1.

A That is correct; in the copy I have it is 1330.1.

Page 93, line 13, in the next to the last set of figures it should be 1335.3, instead of what there is there 1- instead of 1355.3.

Page 94, line 4 and 5, under "Well No. 4", on February 1 it should read 1342.4, and under February 2, it should read 1342.7. In line 19, under "Well No. 2" the figures should be 1349.2. It appears right in the original record; I have a copy here. Then that is correct; the error was made in the recopying.

Page 95, under "Well No. 7", in line 25, Aug. 16, it should be 1346.2, instead of 1348.2.

On page 97 in line 4, the date should be Dec. 22, instead of Dec. 28.

On line 11, on March 31, in the 4th column, the figures should 1354.3, instead of 1353.4, and the next figure under the same date should be "1353.4". And the next Column, the

figures were omitted entirely, and they should be 1342.4.

The next is on page 539, line 9. The third word should be "sediment".

Page 677, line 15, cross out the fifth word "to" and substitute "by or pass".

Page 678, line 11, strike out the word "those" and insert the word "tunnel".

Page 2421, line 13, the seventh word should be "Nearly"

Page 2426, line 4, "pipe line" instead of pie line".

IT IS STIPULATED that the corrections be made by the reporter in the record, except when otherwise directed.

Page 2432, line 10, the second word is "to"; it should be "by".

Page 2433, line 25, the fourth word from the end of the line "it" - it is a little ambiguous there; the water is what I am describing; strike out "it" and insert "the water".

Page 2438, line 10, strike out the words "out" and insert "put".

Page 2460, line 21, strike out "tunnel" and insert "tract".

Page 2474, strike out July 10, and insert "July 11". In the second column under Oct. 6, the figures should be 208.48, instead of 208.38.

Page 2477, line 26, the date should be July 2 instead of July 20, and in the next column, line 27, under the record of well No. 1, the discharge should be on July 17, 70.40, instead of 70.74.

Page 2478, line 11, Oct. 6, under well record of well No. 3, the figures should be 79.91, instead of 79.01.

Page 2487, series 13 of this tabulation, of the rainfall, for the season of the years 1903-04, the total should be 13.47.

Page 2491, there is a measurement left out and it will have to be inserted between lines 7 and 8. The measurement is Aug. 27, under column well No. 7, and should be 71.04. You have already referred to that, Judge Britt, in your analysis of those measurements.

Page 2492, under April 27, and under well No. 8, the measurement should be 40.68, instead of 40.88.

Page 2497, between lines 20 and 21, Nov. 4, the figures are 49.33, instead of which they should be 49.97.

Page 2506, opposite line 21, the total is given as 172.52, whereas it should be 364.81.

Page 2507, at the end of line No. 8, the figures 2360 should be written in the place of 2660.

Page 2518, under the year 1905, between the dates October 14 and October 28, insert, "Oct. 21, 319.30.

Page 2533, the year was omitted over the date. It should be 1908.

On January 9, under well No. 6, the measurement is given here as 36.97, and it should be 40.60. And in the same column under date of Feb. 19, the record should be 64.00, instead of 60.4. And down in line 25, after Jan. 10, write in the omission of the year, 1909.

Page 2537, in the column marked December, and opposite the date 8, you will find the figures 385.84; and it should

be 288.84.

Page 2545, at the end of line 5, the figures 1366.4 should read 1365.6. In line 9, under well 2, the figures are 1378.8, and they should be 1378.0.

Page 2549, line 6, under date of Septe-ber 15, 1890, the figures should be 473.1, instead of 472.1; and under date of Sept. 15, they should be 129.7, instead of 129.47 .

Page 2551, in line 17, the date should be Sept. 7, instead of Sept. 17; and in line 22, the date should be Oct. 2, instead of Oct. 12.

Page 2558, line 22, the date should be Oct. 4, instead of October 11; and in line 25, in the last column, under the heading "totals", the figures 215.6, should be 315.6.

Page 2559, line 3, Oct.- I guess the date was left out, but it should be Oct. 4, 1901. That is one of the items we had under discussion and correction, and I might as well carry out here the result we got in that discussion.

Under the heading "SA.Creek" 180.5. Under S.A.Tunnel, 71.0; those should be written in.

Under date Oct. 4, 1902, under S.A.Tunnel, the figures should be 53.9, instead of 52.9. And on the same line under "Sadie tunnel" the figures 213.8, should be written in. That was an omission.

Then in the 13th line, where it says Oct. blank, 1906, it should be Oct. 5, 1906.

Page 2568, there were some words left out between the words "the" and "small" in line 12. Insert "waters from".

Page 2577, line 1, that last large figure, just before the word "day" at the end of the line, should be 135,340,

instead of 335,840.

On page 2582, line 17, the measurement there in inches should be rainfall of 47.5 inches instead of 44.5 inches.

Page 2584, line 12, the first letter in the fourth word from the end should be a "p" instead of an "l" to make the word "pertinent".

Page 2591, line 8, under well No. 3, the elevation of April 13, should be 1385.2, instead of 1383.6.

Page 2592, I have made some corrections in the statement there later, and I have corrected this paragraph to conform to the corrections which I put in later. Line 11, it should be Dec. 26, 1908, instead of Jan. 17, 1909; and in line 22, Jan. 17, 1909, should be eliminated and cut out, and the words "On that date" substituted.

Line 23, the figures 40.72, should be replaced by the figures 33.10.

Line 26, the figures 40.7, should be replaced by the figures 33.1. That correction conforms to one that I made in another place in Court during the examination.

Page 2601, line 16, where the words "San Antonio Water Company" occur, it should read "Cucamonga Water Company."

Page 2635, line 25, after "and" strike out "there" and insert "at".

Page 2642, line 28, substitute in the place of "into" the word "of".

Page 2647, line 6, cut out the letter "s" in the word "conditions" and make it read singular. And in line 16, the word "hydraulic is improperly spelled. The first letter is a "d" instead of an "h".

Page 2648, line 11, the third word from the end should be "mouth" instead of "mount".

Page 2653, the second word should be "period" in line 23.

Page 2655. Here is one of those places where the reporter left out something I did say. Line 6, insert the word "not" between the words "does" and "mean." The way it reads is this: The only addition I would like to make is this: The fact that that material is saturated does mean that water will pass through it with sfficient velocity to be of any moment." What I said was "The only addition I would like to make is this: the fact that that material is saturated does not mean that water will pass through it with sufficient velocity to be of any moment."

The Court: Does the stipulation cover that statement?

Mr. Britt: The text shows it ought to be that way.

The Court: Then there is no objection.

Page 2663, line 22, after the word "March" the figures are 354, and they should be 11.17.

Page 2716, line 8, strike out the word "and" and substitute the word "I".

Line 11, the year 1903 should be 1908.

That completes the corrections I desire to make in the direct testimony. I have not been able to give any attention to the cross examination.

Q Have you the copy of the map that you have been referring to as Exhibit 12, in the case of McPherson vs. the Cucamonga Fruit Land Company? You had it here yesterday.

A I had it here yesterday, and I omitted to bring it this morning; it was raining, and I couldn't bring it under my coat; if you wish it I will have some one go and get it.

Q Well, probably we can get along without it.

A Well, I will bring it this afternoon if you desire.

Q In the trial of that case, calling your attention to page 1301 of the transcript of the testimony given by you, at line 18 and following - you have it with you?

A Yes, sir; I have the page before me.

Q Did you then testify as follows: "The main storm channel from Cucamonga Canyon runs down through what I call the Red Hill, and down through near the winery under the bridge."

Did you so testify?

A Yes, sir.

Q That was correct at the time you gave the testimony?

A Yes, sir.

Mr McKinley: Will you read the balance of the statement and the next question and answer, to save time, because if you do not I will have to call attention to it in redirect. I thought for the purpose of saving time it had better go in now.

Mr Britt: Certainly.

Q Following what I have read, after the word "bridge". "Below there - at times - during heavy storms this changes; water has broken away from this main storm channel, probably a couple of miles above Base Line, and run over

towards the Ontario Colony lands and across the County road; within my recollection there has been one storm that it crossed the County road.

"Q Where did it cross with reference to the little Red Hill?"

"A Some distance west of it; I can't tell you exactly; it is shown on the map as the westernmost wash.

Then following immediately:

"Q Is there any rising water in that east storm channel?

"A There is no evidence of any water in that storm channel from the mouth of the Canyon down till you get down into that part of the Red Hill where the channel intersects the cienega.

"Q What is known as the big cienega on the east?

"A Yes, sir.

"Q And there you find water coming into the channel?

"A Yes, I find water coming in all around on the cienega formation."

Q You gave that testimony at the time to which I refer?

A I did.

Q And the testimony was correct was it?

A Yes, sir; I think it was.

Q And conformed to the facts?

A To the best of my knowledge and belief at the time.

Q The bridge mentioned in that testimony is the bridge shown on Plaintiff's Exhibit 1, is it, marked as crossing the County road, in the notation indicative of a wash, northwesterly from the marks which enclose the word "winery"?

A That is one of the bridges; that crosses the easternmost

wash.

Q That is the one which you mentioned here as being the main channel?

A Yes, sir; in the early part of that interrogation which you gave me.

Q Referring to page 1324 of the transcript of testimony in that same case, line 29, speaking of the Frankish and Stanm tunnel, did you give this testimony:

"There were old storm channels in that debris cone all over the channel; that is, the ~~channel~~ tunnel intersected them."

Did you so testify at that time?

A Yes, sir.

Q That was correvt was it?

A Yes, sir.

Q At pages 1325 and 1326, commencing in line 31 of that page 1325, speaking of the flow of water from the Cucamonga Canyon, and in the Cucamonga wash, did you give this testimony: "And in all ordinary or light storms the water does not get very far out of the Canyon; it takes a heavy storm to get out to 16th street."

Did you so testify?

A Yes, sir.

Q The testimony is correct is it?

A Substantially correct in those years; during those dry years there was very little water ran over 16th street.

Q Well, you were not talking about - -

A Well, I meant average and moderate storms; in those dry years there was very little water that got down to the road, where we could observe it on 16th street.

Q You were not talking about storms in dry years; you were talking about storms in general were you not, when you said it took a heavy storm to get down to 16th street?

A I think that is true, as applied to the conditions that I had in mind; that is, the years that I had observed it.

Q At page 1331 of the transcript in that case, commencing with line 7, and speaking of the map there, Exhibit 12, the question being put to you as follows:

"Q Why didn't you show a wash above the radio tunnel?

"A I should have done so, but the indications are that the wash is mainly - -

"Q There is a depression all the way up?

"A Yes, sir."

"Q A depression showing a place for a wash all across here, and it has the appearance of having run there?

"A Yes, sir; sometimes."

Did you so testify?

A I did.

Q Was that testimony correct at that time?

A Yes, sir; it is equally true today.

Q At pages 1344 and 1345, of the same transcript, I call your attention to the testimony relating to the experimental shafts put down on your suggestion or by your direction in the gravel bed north of Base Line, one of which experimental shafts is San Antonio Water Company's well number 3, as we have numbered it and known it in the course of the present testimony, and I inquire of you if you gave the following testimony, line 25, page 1344:

"Q You concluded that the wells that you put down there were upon a gravel bed upon which the plane of saturation was about 50 feet below the surface?

"A Your statement is practically correct; I ascertained that the water in two of the wells was about 35 feet; in well number 3 I found it to be practically 60 feet.

"Q What opinion did you form as to the continuance southerly of that condition, as to the plane of saturation?

"A My judgment was that that water was in the same bed of gravel as the water drawn on by those cienegas and developments on the south."

Did you so testify?

A I did.

Q Referring to page 1414 of the same transcript, speaking of water in the saturated mass described northerly of the Red Hill, did you testify as follows: Line 28:

"Q You did not find any dikes running north and south you say?

"A No, I didn't find any.

"Q What is there to prevent the water moving right along there to a lower elevation?

"A To prevent it moving east and west?

"Q Yes, sir.

"A If the waters don't come in from the north to fill in that intermediate channel it will move to the west; take the waters on the west side of that Red Hill formation that is in thegravel and to the west of that, and in my opinion those waters have a tendency west of south; that is they move to the west; there is less resistance there; and when

"you get east of the Rock Hill, the tendency there would be to work east; in other words they seek the line of least resistance."

You so testified?

A I did.

Mr McKinley: Will you read in connection with that, from line 11 down to where you began, down to line 28?

Mr Britt: The subject begins to be treated I think at line 27 of page 1413; commencing with your answer at line 27, was this your testimony immediately preceding that which I read to you last:

" Well, I think you can find places where it is moving east, and I think you can find other places where the tendency would be to the west."

"Q It will seek its level?

A That is the tendency of all water wherever it is.

"Q If there are no dikes through running crosswise from the main dam to the mountain, why will not the water seek a level and be found at the same elevation all along the valley there?"

"A For the very reason that at the low points in that dike there will be a tendency, and there will be something more than a tendency,- an actual condition - by which the water in the gravel lying north will have a chance to percolate to the south,- it will have a freer and more unobstructed movement than what it has to the north of the portions of the dike which project above the debris.

"Q And for some reason, and that is your reason, it does not extend along the valley at the same level?

"A My opinion is that the water is passing the gravel bed at all points along the south line of it, and passing down through into the valley and helps to make up the sheet of water which underlies the whole valley below, helps to feed it; my opinion is it is fed all along, not only where the Red Hill projects above the surface debris, but where it does not. Where the water projects above that, I expect the water to pass through that, and to move more freely there; consequently we do find, wherever we found there- in fact we haven't found it yet but bored to find it - but we do find in the borings that it has varied levels near the Red Hill.

"Q And the water passes through the dike at the Red Hills, more easily than it passes through the pervious material to the west: Is that right?

"A I don't think so."

That connects with the testimony concerning which I propounded the last interrogatory: was this your testimony at that time?

A Yes, sir.

Q Referring to pages 1437 and 1438, commencing with line 27, page 1437, I will inquire of you if you were interrogated and made answers in the course of your testimony in that case as follows:

"QV In your judgment, say going about 1000 feet of well number 3, and sinking to the depth ~~more or less~~ of the measurement the stratification ~~of~~ the Stowell wells, would you expect to find water at the time you reached that depth, or before you reached that depth?"

"A If I understand your question correctly, you mean if I put a well down so that the bottom of the well is on an elevation the same as the deepest of the Stowell wells -

"Q Yes, sir; elevation above the seaelevel?

"A I would expect to find water before I came to that depth.

"Q And if you sunk a bored well what kind of water would you expect to get?

"A I would expect anywhere north of that dike to get water which would rise when tapped into, and when you get down to any great depth I understand it is artesian water."

You gave that testimony?

A Yes, sir; and I still think so.

Mr McKinley: I will ask you to read in connection with that line 23, to complete the context; you began with line 27.

Mr Britt: Very well:

Q Reading the five lines next preceding line 27, which was the last quotation given: Did you testify to the question stated, thus:

"Q Going west from well number 3, I think you stated that the next place was the Bodenhamer development, to your knowledge?

"A Yes, sir.

That was the testimony was it?

A Yes, sir. I would like to ask you if you have finished on that subject with reference to my old testimony?

Q I have for the present.

A Because I would like to make a statement in connection

with the subject if it is admissible at this time.

Mr McKinley: That will come in in redirect.

A Very well; I would just as soon make it later.

Mr Britt: I don't know at the present time as I shall have any occasion to refer to that testimony again. I am going to conclude this crossexamination as quickly as possible.

Q Returning to the table at page 2555 of the transcript in the present case, at lines 26-27 of that page, you stated that the output of water on the east side of the Red Hill in the year 1908, was 261 inches, and following the same course as was pursued the other day, in asking you to give the elements or the items of which the sums, the totals of water in that locality, for the various years, 1890 and afterwards, were made up, I will inquire of you now how you get this 261 inches as the output of the east side in the year 1908?

A I took the Sunset average for that year, as about 47 inches, based upon an inspection of my own measurements, and the data put in evidence by other witnesses; that is one of the factors. And I took the Sourwine well output as 35 inches; that 35 inches was made up of an inspection of my own measurements, and the testimony of the president of the Upland Water Company.

Q You mean Mr Dillman?

A Yes, sir; I believe Mr Dillman's testimony is what I referred to. To that I have added the supply received by the Cucamonga Water Company from its different sources; I seem to have mislaid my tabulation of Cucamonga water in the year 1908; can you tell me ~~what~~page of the record it

is on?

Q At page 2533.

A Well, I don't know what particular date I took for the measurements of the four different sources of the Cucamonga Water Company, namely, weir number 5, Lone Star tunnel; weir number 7, Lone Star tunnel number 2; weir 8, Creek Division box; and the well K; but I took some date which gave 179 inches as their total on that particular date; I have checked two or three in but they don't come out exactly right.

Q That was Cucamonga Water Company Lone Star tunnel was it?

A Yes, sir. I think there was some water coming from the China Springs and the Y tunnel also, that went into that.

Q Well, how much of it was from the Cucamonga Springs,- the Creek Division box?

A If I could have found my original sheet I could tell you the exact date I had added up, but I have to make an inspection to show what date it was.

Q Well, I will not insist on - -

A I can give that to you; it is only a question of a little time in working it out, because I took it from accurate measurements, partly my own and partly Mr Wright's; I may be able to find the slip of xpaper that I had that on.

Q At the present time I will inquire of you, when you say you took 47 inches as the average for the year for the Sunset well, do you refer to the tabulation which you produced here, and found at page 2498 of the reporter's transcript?

A You are referring to the Sunset tabulation, are you

Judge Britt?

Q Yes, sir?

A I am referring to this table,- that is the original records, and did refer to it in making up that 47 inches; and also I think to a statement of one of the witnesses, to the effect that there was 50 inches pumped from the Sunset; I only have fragmentary measurements that season; my own measurements vary all the way from 36 inches up to 56x inches.

Q Yes, I ~~xx~~ see they do.

A And I took 47 as an average of these measurements , with such information as has come to me through the records.

Q Don't they vary from 30 inches up to 56 inches?

A In the year 1908?

Q Yes, sir?

A Yes, sir; I notice one in June of 30.8; they vary from 30.8 up to 56.68.

Q I think the average of those measurements would be made too high.

A Well, I don't ~~xxxx~~ know that I figured them up; and I couldn't ~~xxxx~~ say that I didn't.

Q I am not making any particular point on that: what I want to know what justification there was in assuming that the measurements made here, which were made from May 27 to November 22, at times when the well was pumping, - what warrant ~~di~~ you have for assuming that the water continued to be pumped all the year through?

A I was only aiming to show the amount of water available during the irrigation season; that is the purport of the

whole tabulation, is the amount available for irrigation purposes; I do know that during that year from these records, at least beginning with May 27, 1908, they were pumping an amount estimated at about 47 1/2 inches; and I find in June two measurements, 42.94,- and so on right through the year.

Q It is not necessary to read it.

A I wished to give you my reasons as nearly as I could, and as concisely as I could, for taking that 47 inches; I don't know that I have taken an average; I don't know right now what the figures would average, but there has been testimony given in this record by officers of the Sunset Company as to the amount pumped; I think their estimates on the whole as to the amount pumped have been higher than my measurements.

Q I am talking about taking measurements during the irrigating season, and putting them in as the total output of the east side of the Red Hill for the year 1908, when it was pumped water for half a year, and if you have put it in as if it flowed the whole year.

Mr McKinley: We submit he did not do that; he was putting it in for the irrigation season.

Mr Britt: He never so stated until he was interrogated about this comparison.

The Court: I have had the understanding that from the very beginning Mr Irask spoke of the irrigating season in regard to this tabulation.

Mr Britt: If Your Honor will refer to the tabulation at page 2555, you will notice that this tabulation is produced

here to show the water output of the Cucamonga Red Hill district from the east side; and the facts are, as developed in cross examination here the other day, that the earlier years here is all gravity water; no pumped water until you get down to about 1900 at any rate, or later; and the witness told us that the water has come back to the east side Red Hill, Cucamonga Springs, but that we were simply taking it out at different places; and in order to show that he says that there is a volume of water on the east side of the Red Hill as great at the present time -though the Court will see that it is not as great by the figures - but in order to sustain the assertion that there is as much water on the east side of the Red Hill as there ever was - that is virtually the language of the witness in response ~~my~~ to the question put by the counsel for the defendant here- there is as much water on the east side of the Red Hill as there ever was; but he says we were simply taking it out at different places - Sunset well, well A, Farmers well, Sourwine well, and so on, and he gets these figures here Your Honor, from 1900 down, and especially from 1904 down, by taking the pumped water from the Sunset wells, from the Cucamonga Water Company's wells, from the Sourwine well, and from one or two other wells over there that I don't recall just now, and is comparing that with the gravity flow in the years previous to the time when we say by their operations they completed the destruction of the Cucamonga Springs, and when I say they I mean the defendants in the case; I am trying to point out to the Court how unjust is that method, when they scour the country and get the out-

out of the various wells, and take the pumped water, and put it in the column as of water to be compared with the times and the years when there was nothing but gravity water flowing. In that respect the tabulation is unsound.

* * * * * * *

Mr McKinley: If the Court please, we insist in this case the plaintiffs are creating a man of straw to knock down, as far as this proposition is ~~xxxxxxx~~ concerned. We claim that it is perfectly clear from the tabulation itself, and from the character of the tabulation, that there was never any pretense that this water was being pumped all the year; as a matter of common sense we know it was pumped only during the irrigation season; and the only inference that could be drawn from it properly, by the explanations of the witness when asked about it, is that it referred to the output during the irrigation season; that the purpose of the tabulation, and what the tabulation showed was that the amount of water during the irrigation season taken out on the east side was practically the same as had been there in the first place; that there had been a change in the character of the water there, that originally came from the wells and springs ~~xxxxx~~ by gravity, and now during the irrigating season it was being pumped out, and there is not any pretense that it was continuously produced during the year, or that these people were continuously pumping during the year. We are simply aiming to show that during the irrigation season the same amount of water is taken as was taken during the irrigation season before; we do not say it has come back, but we do say it never has been taken

away, except as affected by the amount of rainfall.

Mr Britt: The witness said in response to Judge McKinley: There was as much water on the east side as there ever was; they are merely taking it at different places.

The Court: I think there is a disposition to borrow trouble here; I assume as far as any expert theories advanced in this case are concerned, predicated on any measurements of water, the data on which those expert opinions are based are in the record; and when you know from the expert on what he bases his opinion , and you say that the figures are only partial, or not correct. that all appears from the record, and you can make as good an argument based on that at the close of the case, as the expert can during the case. If his theory has not sufficient basis it will not be very seriously considered.

Here the Court takes a recess until 2 o'clock p.m.

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AFTERNOON SESSION:-

Mr. Britt: Q During the noon intermission were you able to get the figures which made the items in the sum total of the output of water of the east side of the Red Hill during 1908?

A I was.

Q Referring to the tabulation which appears in evidence on page 2555 of the Reporter's transcript, you have given us 41 for the Sunset, 55 for the Sourwine. But it was the Cucamonga Water Company's wells or abstractions which you seemed not to be able to lay hands on.

A I will take that up and go right through the complete summary, without reference to the figures I put in before adjournment. By reference to the measurements which I put in concerning the Cucamonga waters over weir no. 5, no. 7, no. 9 and K etc., for that year 1908, if you will refer under date of August 7 you will find the following:

Q Of what year?

A 1908. Well no. 5, the measurements on that date was 45.50 inches; weir no. 7 was 74.90 and weir K was 21.52, but 21.00 is what I used. That makes a total of 141.90 inches. To that I added the amount that was given at weir 5, 40.16, and I took 55 as the amount of water from the Sourwine well, based on--

Mr. Haskell: That is already in.

A -- based on the statement of the president of the company, Mr. Dillman.

Mr. Britt: Yes; you told us about that.

A And then I went to the Sunset record for my own personal

measurements for the year 1908, and I added up the 11 measurements which I have put into the record for that year and took the average as 43.61.

Q This morning it was 47.

A Well, I was making just a rough estimate from the average. I find when I came to go to my notes in the room and took the numerical average of the measurements, if you will add it up you will find 260.75 inches. That is where I got the 261 inches. I took the full inches. And I went into greater detail than I read this morning. I also discovered that I had omitted something from that and that it was really less than it should be. You must remember that in going over a table and a large number of measurements it is almost impossible in the rush to get everything in, especially where the records have not been completed. I discovered that from Mr. Wright's statement, tabulation exhibit no. 76, there was on that date, or rather on August 9, a few days later, -- there was 6.42 inches of water at the Y tunnel division box, which should properly have been a part of this estimate, and which, added in, would give 267.67 inches. Or, following out the procedure I used before, taking the nearest inch, the record should be 268 inches.

Q So that your total output for the east side of the Red Hill for the year 1908 is 268 inches?

A Yes, sir; in accordance with that detailed statement, based upon the measurements and facts I have referred to.

Q And of that there is no gravity water, no constant flow, except that at the Creek Division box, weir B, the Cuscenga Springs, and at that Y tunnel?

A And weir no. 7

Q What is weir no. 7?

A That is the water flowing from the Lone Star Tunnel No. 2.

Q Was there any in 1908?

A The measurement shows that on August 7, 1908, there was 74.90 inches flowing from that tunnel.

Q Don't you know that that tunnel is bulkheaded and only flows for a short time in the year or for a few months in the year?

A I know that tunnel is bulkheaded and during the non-irrigating season they close the gates down and conserve the water. I do know that during the day of these measurements the gates were open and the water was flowing out.

Q Do you remember also that in the case of the Gourwine well, the Upland well, the well which Mr. Dillman testified about-- the witness whom you have cited here -- that he said that that 35 inches is pumped 100 days in the year,-- that that has been their average?

A I recollect he made some such statement; that their irrigation season had an average length of 100 days.

Q Then that 35 inches is pretty near four times as much as would be the output of that well if measured in annual inches?

A No.

Q Why?

A Because there are not 400 days in the year.

Q I said nearly four times.

A It would be the ratio of 100 to 365.

Q And you put it in here in this table as if it were flow-

ing the whole year?

A No; I put it in just as I have every other measurement; that these measurements and records represent the waters available during the irrigation season; just what the table purports to be and just what it is; based on the measurements. I based it on the waters during the irrigation season. This table does not purport to be anything beyond the original tabulated measurements. It is built up on that and cxxxx cannot carry any other conclusion.

Q You have been over that several times and the table shows what it purports to be.

A I might call your attention in that connection, Judge Britt, to the dates of the measurements in the early part of this table. It is very pertinent to this discussion.

Q Well, I want to get through with this cross examination--

A You are criticising the motives that control my methods of constructing it, and I don't think they are open to criticism on that score.

Q What measurements do you propose to call attention to?

A In plaintiffs' exhibit 32, if you refer to it you will observe that many of the measurements which appear on the east side totals, beginning with the year 1885, were taken from said exhibit; and you will further notice the dates those measurements were made; and you will further notice that they were made, a greater part of them, during the summer months. It wasn't put in as annual xxxxxxx run-off at all. and that has been true xxx xxx xxxxxxx of the recent figures that I have put in for recent years. They are simply measurements made during the irrigation

season, and therefore I say that this table is built upon facts which were put in to represent summer measurements, and therefore the deduction that was built of the former measurements should bear the same construction.

Q. I notice the measurements that you refer to in exhibit 3 2 were made of gravity water or water which was perennially running, the year around, out of springs and out of cienegas, and those measurements were not put in with a view to substantiating the assertion that there is as much water on the east side of the Red Hill at the present time that there ever was During the irrigation season for the use of the consumers.

A. If you will read my statement you will see that it bears that interpretation. That is, with that qualification, covering the summer months of irrigation months; xxxx I didn't put into this record any statement about flood waters or waters having run to waste from those natural sources in years gone by in the non-irrigation season when they were wasted and when your clients nor anybody else got any benefit of them. I have simply taken the measurements during the summer months when the water was there, and I have taken the irrigation season in recent years when different conditions obtained, and I have taken the measurements in the irrigation season and made the comparison of water available for beneficial purposes, and I maintain it is the modern and fair method.

Q. Do you claim it is available to those people that own the Cucamonga Springs?

A. I don't know why it isn't, if they put in tunnels and pumping plants and are using it. The word "available" means

at hand. They found it at hand when they needed it and they have pumped it when they have needed it.

Q That is, the water which comes out of the Hermosa ~~xxxx~~ or spring is available to the owner of the Cucamonga Springs?

A I don't know anything about any Hermosa Springs.

Q The Hermosa wells.

A I have referred to the Hermosa wells for one season as pumping out of that old formation, by virtue of the wells located in that formation, and by virtue of the fact that pumping water out of that formation is an interference with the natural output.

Q I didn't ask you that. I asked you if the water of the Hermosa wells is available to the owner of the Cucamonga Springs.

A It would have been available of the people below had objected to their taking it out.

Q Is the water of the Bourwine well available to the owner of the Cucamonga Springs?

A It would have been if they had left it there. And if the Cucamonga Spring owners had objected to their taking it out. I am not responsible for their omissions. I am simply taking the water that I found in the Red Hill, adding it together and showing what has been taken out and what is taken out.

Q Well, the next thing is something else. In this same table at page 2055 you have assumed to show the water output of the Cucamonga Red Hill District of the west side.

A That is correct.

Q Where did you get that measurement of 112 inches in 1905?

A I will call your attention to plaintiffs' exhibit 32.

Q What is the date and amount of the measurement?

A The date is September 26, 1885.

Q From what source?

A The source is this exhibit, with Mr. Fitzgerald as the observer, and the record of hismeasurement on that date. And under the head of "Total" in the next to the last column, which is a total for the west side waters, I find thefigures 111.74, and I have in all these taken the nearest inch.

Q Any pumped water in that?

A No; I think that is all gravity water.

Q The next year, 1886, from what quarter did you obtain the 134 inches?

A From plaintiffs' exhibit 32 and from themeasurement made November 30, 1886, by J. F. Culver; and in the same column and in the same tabulation I find the figures 134.46, and I have appropriated that figure 134 in my tabulation.

Q Any pumped water in that?

A I think not.

Q The next year--1887.

A On July 24, 1887, F. Satony made a measurement and in the same column of the tabulation I find that he gives a total from the west side sources as 73.33, and I have used the fugures 73 in my tabulation.

Q Any pumped water in that?

A I think not.

Q The next year, 1888, 99 inches.

A July 13, 1888, J. F. Culver made a measurement of the different sources and the total on the same exhibit is 98.6xx

and I have used 99.

Q That is exhibit 32?

A Yes, sir.

Q Any pumped water in that?

A I should judge not, from the entriesx in the tabulation.

Q 1899, 150 inches: Where is that found?

A July 13, 1889, and the amount is found in Plaintiffs' Exhibit 32. The observer was E. T. Wright and the total amount found on the west side as by his figures was 149.53 inches, and I have taken the total in my tabulation as 150 inches.

Q Any pumped water?

A I think not.

Q Next year, 1890, 218 inches.

A July 14, 1890; observer, E. T. Wright; and I find in the same exhibit 32 the totals for the west side, 211.07 inches, and I have taken the figures 218-- I think there is a clerical error in copying that down.

Q What is the error, Mr. Trask?

A I think the measurement should be 211 inches. In my tabulation I have 218. It may be that there was something else to add in on that date, but I don't see any memorandum here.

Q Isn't that the mean of the two measurements on that day?

A That is correct. I thank you for calling my attention to that. That is what I did. I took the mean of those two measurements. They were on the same date.

Q Those measurements followed the extraordinarily wet year of1889-90, did they not?

A They preceding rainy season was an exceedingly wet season; very heavy rainfall.

Q For some years following there is a blank,-- for1891, '2 '3, '4 and '5, and the next measurement occurs apparently in '96, when there is 64 inches. Where does that come from?

A This tabulation would indicate that it was my measurement, but I think there must be some error in that. I don't recollect making any measurement on the west side on that date. Possibly my memory is at fault. I think if Mr. Wright will advise you it will be to the effect that Mr. H. T. Stowell made those measurements.

Q You take it from exhibit 32?

A Yes; and I know from other data that I have in my possession that H. T. Stowell took those measurements in the McPherson case, and I presume that is the original that Mr. Wright went to for them.

Q What is the 64 inches for that year made up of?

A It is made up of 22 inches from cienega D. Cienega D is what we have spoken of in this case as the cienega on the west side of the Red Hill.

Q It has now disappeared, has it not?

A There is no water running from that cienega. There was very little in 1900.

Q All right. 22 inches from that cienega.

A And then there was another cienega known as Picnic Springs near the Sycamores which was somewhat west from the Cienega D.

Q How much from that source?

A 1.7 inches. Then there were artesian wells nos. 1 and 2. Those artesian wells nos. 1 and 2 were in that Cienega D. 25 inches. Then the Lady Tunnel was discharging 18 inches, and

the total given here is 64 inches.

Q Now the next year, 1897, 69 inches: What does that consist of?

A That year my recollection is that these figures are from records of Mr. Stowell which were in the McPherson case and which Mr. Wright has incorporated and made part of plaintiffs exhibit 32. They seem to be made up of 27 inches from the west side cienega, 1/2 inch from the Picnic Springs cienega and 20.25 inches from the artesian wells nos. 1 and 2, and 41.4 inches from Cucamonga Tunnel or Lady Tunnel, making a total of 89.15.

Q In 1898 in your tabulation here there is 25 inches stated as the flow of the west side of the Red Hill, with an interrogation point.

A Yes, sir; in this same tabulation, plaintiffs exhibit 32, I find the figures in the total column to be 26.5 inches, and I put in my tabulation the figure 27 with a question mark after it for the purpose of calling my attention to the smallness of it and questioning the accuracy of the total run-off at that time. I am inclined to think there was some water not measured on those dates, although that is simply a surmise.

Q Proceed to the next-- 1899-- when according to this tabulation there was 123 inches flowing on the west side. Where do you obtain that measurement?

A I seem to have taken the date of August 21, 1899, when Mr. Wright measured the west side, and in his totals he gives the figures 123.52, and I have taken the figures as the whole number 123 inches.

Q What was it made up of?

A It seems to be made up of west side cienega 3.13 inches; artesian wells nos. 1 and 2, 2.68 inches; and Lady Tunnel, two measurements of which I suppose represents measurements of two weirs, some of which would be pertinent here. One of them is 57.05 and the other 59.66. That gives a total of 122.52 inches.

Q That was in August, 1899?

A August 21.

Q Was that after Stowell had undertaken to develop the water in that tunnel in connection with wells with a view to supplying the San Antonio Water Company with water in pursuance of that contract?

A It must have been. He began supplying the San Antonio Water Company in the year 1898. The supply was continuous from that on.

Mr. Britt: I ask that the statement that the supply was continuous be stricken out as not responsive to the question.

The Court: Stricken out.

Q In the year 1900 there is 146 inches given in this tabulation: What are the items that make up that sum?

A There are a number of measurements during that year. I think I took the measurement on July 11 which is one of Mr. A. T. Wright's measurements. I find in his total on that date that he had 145.9 inches.

Q What does it consist of?

A It consisted of the run-off of the Lady Tunnel measured over two weirs, one of which, the Cucamonga weir, measured 63.98 inches, and the San Antonio Water Company weir measured 81.92, making a total of 145.9, and I took the whole number

of 146.

Q The next year was 1901, 165 inches. That is made up of what items?

A I find Mr. Wright made numerous measurements during the season of 1901, and I should judge from an examination of plaintiffs' exhibit 32 that I took the date July 9, 1901, when Mr. Wright made a total of 164.76 inches.

Q From what source?

A That is made up of two measurements, one over the Cucamonga weir which represented the Cucamonga waters of 62.52 inches, all of it being output of the Kady tunnel, and he had 102.24 inches going to the San Antonio Water Company from the same source, or a total of 164.76. That is where my 165 inches came from.

Q Now for the years 1902 and '3, of which time no measurements occur in the tabulation at page 2555, have you no measurements yourself from any source?

A Nothing except one or two measurements in the latter part of the year 1903 that I made at Weir B in the Kady Tunnel and which are in the record. But I made no measurements of the amount going to Cucamonga Water Company , so it was impossible for me to make up a total.

Q At the Weir B? Are those the measurements which occur at page 513 of the Reporter's transcript?

A I don't recollect the page, but they were put in the testimony in one of the early sessions of the Court-- a year ago or more.

Q At page 513 there is a tabulation commencing with June 23, 1903 , 227.8 inches at the weir in the shaft on

the land just off of the 90-acre tract near the northwest corner, and weir in the Kady tunnel at a point just above where the water passes on to the 90-acre tract. And this is called Weir B, as you stated, in all your notes and books, and I inquire if that is the tabulation to which you referred a moment ago.

A It is. It is a tabulation made over a weir which was in the cement shaft, and the waters measured over that weir were the waters flowing on to the 90-acre tract from the lands north and west.

Q Then you have no measurements in 1902 and '3 showing the total quantity which flowed out of the Kady tunnel?

A No, sir; I have been unable to find any measurements, and my recollection is that I have none.

Q But there was on June 25, 1903, at that point 227.8 inches.

A That represented the amount of water that was going into the tunnel above the point where the tunnel emerges into the 90-acre tract. In other words, it represented the water that belonged to the San Antonio Water Company and the Ontario Power Company and there is no record of the waters there belonging to the Cucamonga Water Company that would be flowing into the tunnel on to the 90-acre tract, so it is only partial measurement of the tunnel.

Q From what sources did that 227.8 inches come? You have already stated that it came from the tunnel above the 90-acre tract. But from what tunnel?

A It was measured in the tunnel above the 90-acre tract but very close to the point where it passes into the 90-acre

But it came from numerous sources. It came from the ground in and about the 90-acre tract and some of it from the '96 well- the Stowell well-- and there was several others that had been cut into the tunnel, and also from well no. 9 of defendants' exhibit B, or well no. 14 of Plaintiffs exhibit 1, which was the uppermost developments of the wells that supplied the tunnel above the 90-acre tract. All these sources were responsible for the total amount of water.

Q. Do you know whether well no. 14 was being siphoned into the tunnel at that time?

A. I have no record. The only information I have is what has been put in here by the different individuals who have testified in this case. I have no recollection as to what was done or taking place at that time.

Q. You know that the water from that well made a very great accession to the output of the tunnel?

A. I so understood; yes, sir; and I understand that part of that water was, more or less of it, from well no. 14 on the dates of those measurements.

Q. The next measurement, 1904, the amount was 199 inches. From what source do you draw that result? I should have said 230 inches, Mr. Trask, instead of 199 inches.

A. I think that was taken of date about August 8. The first measurement of my own which appears in the tabulation you will find on page 2473.

Q. And the date is August what?

A. It seems to be August 8. I find that on that date, which was about the middle of the season, that the total flow of the tunnel was 230.46 inches, and my recollection is that

I took that as being about an average for that year.

Q It was all out of the tunnel?

A Yes.

Q And included according to that tabulation 153.68 inches taken by the San Antonio Water Company and 77.78 inches by the Cucamonga Water Company?

A Yes, sir.

Q That is 1904?

A Yes, sir.

Q Those are your own measurements, are they?

A Yes,,sir.

Q That included the flow of this well 14 or 9?

A Yes, sir; that total measurement included all the waters that entered the tunnel on the 90 acre tract from the surrounding grounds and from the wells also that entered the tunnel above the 90-acre tract-- from any and all wells, including no. 14.

Q In the year 1904 have you any measurements previous to August 8 of thoutput of the water from that tunnel?

A I have some, I don't know how complete they are. I have quite a number of measurements made over the weir which measured the water going to Ontario, beginning with April 11.

Q Haven't you any in earlier periods of the year?

A No; I think I began my work about that time in connection with the preparation of facts in this case. That is the first measurement I have in my book and I think that is about the date of my first trip that I made out there.

Q You haven't any measurement made in January?

A No, sir; according to my notes here ~~xxxxxx~~ April 11 was

the first day that I spent out there after my employment, and I made no earlier measurements that year.

Q Give us what you had at that time.

A I made a number of measurements prior to August 8, showing the amount of water going to Ontario.

Q But not the Cucamonga weir?

A I have no measurements of the Cucamonga weir up till the date of August 8. That is why I didn't include the others because I couldn't give a total output of the Lady Tunnel prior to August 8. Prior to August 8 the Cucamonga Company had everything locked up, and after August 8, whenever I met the zanjero there or Mr. Reid, one of the employes of the plaintiff, I had access to their weir and I measured the water, and those measurements are included in my tabulation; so the measurements that I give you now are only the amount received from the Lady Tunnel by the Ontario Company.

Q If they are numerous, I don't want to take the time to read them.

A It is, but I will read a few of them.

April 11, 178.5 inches.

April 14, 212.5.

April 15, I have three measurements made at different times during the day, 191.0 at 10 a. m. At 10:50 a.m. 212.5, and at 3:15 p. m. 206.5. On April 28, 183.3.

On May 7, 184.14.

On May 13, 178.40.

On May 19, 180.65.

On May 26, 177.80.

June 11, 174.95.

June 18, 172.71.

June 27, 169.45.

July 2, 176.08.

On July 9, 171.51.

On July 16, 176.54.

July 26, 166.0

July 30, 159.25.

And the next would be the August 8 measurement which is in the tabulation.

Q They all mean inches?

A All mean miners inches, and measure water going over the weir into the pipe line going towards Ontario and representing San Antonio Water Company water, but did not represent the total amount they were entitled to, as I have explained before, as Weir B was measured and showed an excess of as high as 50 or 60 inches over what they were getting over this weir.

Q These figures that you have just read have not been in evidence heretofore?

A No, sir; they have not. At least, I have no recollection of putting them in.

Q The Company has no record that you know of of that tunnel in the winter previous-- the winter of 1903-4?

A I know nothing about what record they kept there. I have no recollection and no knowledge.

Q Take the year 1905, in which the tabulation shows at page 2555 199 inches.

A That year I added up the measurements, which you will find given as the measurements for the year 1905. I added up the

totals from the daily tunnel and divided by the number of measurements made and got 199 inches.

Q That appears at the table at page 2473?

A Yes, sir.

Q All right. I have no fault to find with that method in this instance. 1906.

A I have no notes here, but my recollection is that I pursued that same course with these measurements given in that table on page 2473 of that year, and the result is 240 inches. And I should judge by inspection that that is my method? That is my recollection of the method.

Q And in 1907?

A I think I practised the same method for 1907 and 1908.

Q That is, you took the total measurements at page 2473 for the year 1907 and divided by the number of measurements?

A My recollection is that I averaged them up.

Q At that time the bulkhead had been put in, had it not? It was put in early in the year 1907?

A The bulkhead was put in some time-- the gate was closed sometime in January-- in the latter part of January., 1907.

Q I think your average there of 260 inches in 1907 would be excessive, in looking over these figures.

A It may have been that I have used an average for the irrigation season there instead of the average when the gate was closed.

Q In several instances it exceeded 260 inches, but often it was down to less than 100.

A I think, Judge Brill, I will have to qualify that by saying that it was an average for the period when the bulk-

head was open, probably.

Q In 1908, 300 inches--

A That would be an average during the irrigation season.

Q During the irrigating season or during the time the bulkhead was open.?

A The bulkhead gate was open during the irrigation season. There is a small amount used in the winter and it was only partially open.

Q I see there is a large measurement in January, 1908, of 229 inches, the same as there was in January, 1907.

A That was part of the preceding irrigation season. You will remember, if you refer to the records, you will find that the rains-- -- that the pumping was kept up quite late and that the rains came sometime about that time in January, and at that time the bulkhead gate was closed down and the pumping operations ceased. And I should judge, looking at this table, that some time between June 8 and June20 they began the regular irrigation, and the season continued through till the early part of December. I think that average, however, runs back to sometime in March. I think I took the irrigation season from some point in March up to about the first of December and added them up between those dates and divided by the number.

Q Isn't that bulkhead so arranged that its manipulation permits the escape of the water at the will of the zanjero, sometimes a good deal and sometimes a little, sometimes a minimum and sometimes a maximum?

A The bulkhead gate is there so that anyone can go and adjust the run-off. But there are arrangements existing between the owners of the water coming from that tunnel which

regulates the dates when it shall be opened and the amount that shall be turned out.

Q The machinery which operates to open and close the tunnel is so adjusted that a small quantity can be discharged or a large quantity? This arrangement does not mean that the tunnel was either discharging to its full capacity or none discharged at all?

A No; the gates in the bulkhead are so constructed that in a great measure the control is subject to the zanjero's will, or the company's. As a matter of fact, there is considerable leakage around the bulkhead; so that when the gate is shut down and no water coming directly through the bulkhead there is considerable escaping around the bulkhead.

Q Do you know what quantity that is?

A I don't think I ever had an opportunity of testing it.

Q You never have measured it?

A I have measurements taken on the dates that I have given, but on such dates I don't know the condition of the gates, or whether it was fully closed or partly closed.

Q In relation to that bulkhead, I understood you to say that the bulkhead was placed in a part of the tunnel where the formation is close and dense.

A That is fairly correct. That is, the material was quite compact. We sank a shaft independent of the old workings down to the tunnel.

Q To what depth?

A 81 feet from the surface of the ground to the grade of the tunnel.

Q That is in the Red Hill formation, is it?

A Yes, sir.

Q Did you preserve a log of that shaft?

A I have a rough statement of what we passed through.

Q Have you got it with you?

A I have it right here in my notes. It is blurred so that I don't know whether I can read them or not. The top of the curb is zero. The measurements are from the top of the curb. I imagine the curb was a little above the top of the ground, but it couldn't have been far above, because I made no note of it. It was to keep the dirt from sliding in. At 47 feet there seemed to be a dividing line. I called it a contact line. And it changed from a clay gravel to a clay. And then that same clay material, which was a sandy clay-- there was no pure clay there-- continued down at 57 feet, which would be about 10 feet, and there was another apparent contact line or a change in the general character of the material where it passes from the clay to a gravel, "f "fine." My recollection is that it was coarse sand intermixed with fine sand and silt, but some quite good size gravel. From 57 to 61. The next contact was 61, and there seemed to be a change there and we passed from this fine gravel to a silted clay, and we remained in that until we got down to the grade of the tunnel, which was 81 feet. Then when we reached the grade of the tunnel we dug down in order to get a mass of concrete below the grade of the tunnel, and about three feet-- I have no notes of that-- but between three and four feet we ran into some very coarse gravek, and the moment we tapped into it we immediately put the concrete in so as to shut off any connection between the tunnel and that gravel.

Q Now, Mr. Trask, you have several times spoken of some wells in the neighborhood, some of which I believe discharged water into the Kady tunnel, and among the group-- those perhaps not discharging water into the tunnel-- were two probably close together in which there was a difference in the elevation of the water of something like 80 feet: Do you recall the wells to which I refer?

A Yes; I remember that those wells were 21 feet apart and that the difference in the elevation of the water was 87 feet.

Q Now if those wells were in a different species of formation, one close and tight and clayey and the other loose and gravelly and sandy, the difference in the elevation of the water at such close range would be accounted for, would it not?

A I don't know as that would be the reason why they should stand at different levels. I don't know as it would be an explanation-- a complete one.

Q If the one where the water stands at a greater elevation is a close and tight formation, if the compactness of the formation was sufficient so that the water wouldn't run out and join the water of the well at the lower level--

A Well, the compactness of the material would not make much difference in the elevation to which the water would rise, provided there was water that was moving at all, because it would take very little water to fill the well.

Q Have you measured the wells recently?

A They have been cut off for years and I have had no access to them. They were cut off into the tunnel and that was the

method of getting the water from them. That was part of the development work the cost and expense of which has gone into the record here.

Q Now at the time that the wells were measured, found a difference of 87 feet in the elevation of the water, was either of them cut into the tunnel?

A Yes; one of them was cut into the tunnel and the other was not.

Q Was the other connected with the tunnel in any way?

A Not directly.

Q The one in which the elevation of the water was lowest flowed into the tunnel?

A Yes, sir.

Q Do you know what its output was?

A I do not. I had no means of measuring the discharge or the amount of the discharge.

Q Then the situation was simply that there was a well 21 feet or 23 feet from the tunnel in which the water stood at one elevation, 87 feet above the water flowing in the tunnel?

A I won't say that the well in which the water stood 87 feet above the ~~xxxxxx~~ other was that far from the tunnel. The two wells were that far apart; but the well in which the water stood highest may be closer to the tunnel. The tunnel didn't intersect either of the wells; it ran by them and there was a drift cut to the one that was cut in.

Q At any rate, the one in which the water elevation was lowest was on a level with the flow of water in the tunnel?

A Yes, it was discharging freely into the tunnel.

It had been cut into the tunnel.

Q. Then but for the cutting off of that well in the tunnel, those two wells might have stood at the same elevation, might they not, being supported by the xxxx head of water from the same source?

A. They might have stood at the same elevation if they were drawing water under the same pressure; but they seem to have been separated, or the sources of supply seem to have been separated, so that when one was cut off it didn't pull the other down. If they were in close sympathy the one that was up high would have been pulled down.

Q. That would depend on the quantity of water which fed the two wells, wouldn't it?

A. I can't imagine a sufficient quantity of water in that formation of ground, with two wells that close together tapping in the same formation, where there wouldn't have been an interference. A 10 or 12 inch well--

Q. Were both of these wells 12-inch wells?

A. I don't recollect the diameters of them, but the average diameters of those wells are 10 or 12 inches, and some of them are 14 inches.

Q. Do you remember anything about the diameters of those two wells respectively?

A. Not from my memory. I presume I have notes of that diameter somewhere.

Q. Do you know what their depths were?

A. Not from recollection, but I presume I have those records.

Q. State it if you please.

A. I don't remember the number of those wells. I think I

would have to refer to the McPherson testimony to get the numbers of the wells, and then I could give you the data.

Q Your copy of exhibit 17 in that case, wouldn't that show?

A This shows a number of wells, but I don't remember which was which.

Q And you can't tell from their position?

A I will have to go to the testimony. I can get it out for you if you wish.

Q How far are those two wells removed from well no. 14 or 9 -- the big well at the head of the Eady tunnel?

A In a direct line I should say between three and four hundred feet, scaling the distance from the map; but the tunnel don't follow a direct line; it would be a little longer than that.

Q When that well was opened and connected with the tunnel do you know what if any effect followed on the water in the two wells that we have been speaking about? Did the quantity diminish?

A By "that well" which well do you refer to?

Q No. 14. When that well was connected with the tunnel.

A I have no knowledge of what took place. I presume other wells have been connected with the tunnel prior to connecting 14 with the tunnel/ especially at the lower ~~xxx~~ ~~xxxxxx~~ levels.

Q Now, Mr. Trask, asking your attention to the exhibit on the blackboard designated here as defendants' exhibit A, ~~xx xx~~ and which bears the inscription "Profile and section of wells north of Base Line" with some other matters, and commencing at the left, there is a perpendicular series of

marks and brands under the word "well No. 1, 1901." Do I understand that that portion of this diagram or chart exhibit A is intended to represent at that point the elevation of the well no. 1 of the San Antonio Water Company's 16th street wells in theyear 1901, or is that the year that the well was drilled?

A That year was intended to represent the year when the well was drilled.

Q What time in the year?

A I don't know.

Q All right. I think we have some other testimony on the subject. But these marks below the inscription "well no. 1 1901" mean what?

A In a general way those character markings about the well represent the material, which has been divided into two general classifications. The parallel lines represent close or impervious formation, and the characters made up by little dots and circles bunched in together closely, represents open or pervious material.

Q Where do you get that stratification-- the authority for that diagram?

A The authority for that diagram comes from a copy of the well logs.

Q Is the log in evidence?

A I don't know whether it is or not. I don't remember whether Mr. Leake read in the figures from some of the logs or not.

Q Your statement was on page 2595 "the log of the wells, in so far as I have been able to approximate it, has been

shown on the diagram at each well."

A My approximations were based on such figures and records as have been supplied to me by the officers of the San Antonio Water Company from time to time.

Q My recollection is that we have inquired for the logs of those wells, but unsuccessfully. If you have any logs of the wells we would be very glad to have them placed in evidence.

A I have in my personal note books copies of what purport to be the logs that were taken by the well borers and which were supplied me by the officers of the San Antonio Water Company.

Q What officers?

A I presume most of these were furnished me by Mr. Shepherd when he was secretary.

Q When were they furnished to you?

A Some of them were furnished me for use in the Patterson case, such of them as they had at that time, and others have been furnished since the beginning of this suit, but I don't know the dates.

Q You don't remember from what officer you received the information?

A I remember that Mr. Shepherd furnished me with figures and I remember Mr. Leake brought me a copy of one of the wells, but I made no memorandum of the fact.

Q What did you do with the papers which they supplied?

A I don't remember, but I put copies in the a memorandum book which I have in my possession for my own permanent record and for my convenience, and it is that copy which I have

in my possession that was used in constructing those characters at each of the wells as they appear on exhibit K.

Q. Those notes and information thus received are not yet in evidence to your knowledge?

A. So far as I know, they are not, although they may have been. I don't know what Mr. Locke read into the records. I haven't looked his testimony over.

Q. I asked you about well no. 1. Do your statements apply also to the other wells, nos. 2, 3, 7, 8 and 9 on this diagram?

A. I am inclined to think that well 9, the record as shown was taken by me from some data that Mr. Stowell gave me. Well 9 is the well which has been referred to here by the plaintiffs as no. 9, being in the upper end of Lone Star Tunnel No. 1.

Q. So you have brought this exhibit K here without other information as to what is under the ground at those points than such as you have just now described?

A. The facts that are on there have come to me from the sources which I have just described. In that answer I refer to the log of the wells only.

Q. Now, Mr. Trask, almost the last tabulation with which the Court has been favored from your hands here is found at page 2591 of the reporter's transcript, and purports to be a tabulation of water elevations of wells nos. 5 and 9 and discharge from Lady Tunnel, the first date given being January 9, 1908, and I understood you to draw certain inferences and deductions. You have the tabulation before you, have you?

A. I have.

Q The well no. 9 referred to there is the well called no. 14 on plaintiffs' exhibit 1, is it?

A Yes, sir.

Q And the elevations given in the two wells are elevations above sea level?

A Yes, sir; they refer to sea level and give the elevations of water on the dates opposite to which they are written.

Q Were these measurements made by yourself?

A With the exception of one.

Q Which is that?

A On February 2, 1908, Mr. Finkle made that measurement, and I have already referred to that as one which he would substantiate.

Q Which measurement do you refer to on February 2, 1908? There are three.

A I didn't make any measurements on that date. I was not out at the Red Hill on that date. Mr. Finkle was. I don't know who was with him.

Q You mean to say that you don't know anything about the measurements which follow the date February 2?

A And Mr. Finkle made those measurements and gave me copies of such measurements, and they were put in my note book with the memorandum that they were made by Mr. Finkle for my use, and my stenographer copied them into the tabulation and I have used them with the qualification that Mr. Finkle will put them in evidence when he comes on the stand.

Q Take the first one, January 9, 1908, when the elevation of the water at well no. 3 is given as 1376.2. You observe it, do you?

A Yes, sir.

Q Was that measurement made on the same day as the following measurement of well no. 9?

A Yes, sir.

Q And was the Lady Tunnel discharge, 250 inches, was that taken on the same day?

A Yes, sir.

Q Is that so throughout this tabulation that the measurements in thetwo wells and in the Lady Tunnel were made simultaneously or on the same day, at any rate, following the respective dates in the left hand column?

A Yes, sir.

Q Now have you any previous measurements of the elevation of the water in well no. 9?

A I think if you will look at the tabulation in the record you will find many of them.

Q Which tabulations do you refer to?

A The tabulation of wells north of 16th Street which I put into the record. I don't know what page you will find it on.

Q At page 88 of the record--

A On page 88 you get the elevations of the wells prior to some time in 1907.

Q Yes; but I don't find that well no. 9 is among them.

A I think you will find some measurements there, but you will find at the session of this court during this year I have put in measurements covering the year 1908.

Q If there areany numerous elevations and measurements of water in that well, I would like to see them.

A I will call your attention to page 2543 and 2544 and 2545

of the transcript.

Q All right. Where are the elevations of the water in the well no. 9?

A If you will look on page 2544 you will find the fourth column is well no. 9, giving water elevations--

Q My question was whether there were previous elevations of that well appearing in evidence.

A Then you will have to look back in the testimony--

Q Have you had any?

A I have had them yes, sir. You will have to look in the testimony put in a year ago. If you will look on page 97 of the transcript you will find elevations of water level in well no. 9 beginning with January 11, 1907, and coming down to May 6, 1907, and Mr. Wright calls my attention to the fact that there is an omission between that date and the 2nd of February, 1908.

Q I have a note here to request what elevations you have of water in wells from May, 1907, to February, 1908.

A I have them right here and I will read them to you.

Q Are they very numerous?

A They are.

Q If they are very numerous I would rather not take up the time now, Mr. Trask. If you will favor us with a list of them we will endeavor to tabulate them.

A I have tried to take off a list but I couldn't get the time.

Q Let us take it out of court.

A I haven't been able to get the time. I haven't been able to read my testimony and I haven't touched the record,

and I have worked my eyes till I am about blind. My disposition is all right, but there is a limit to my capacity.

Q If you will allow us to use those pages of your note book that would relieve you of the necessity of transcriptionx yourself.

A Possibly I can find somebody to copy them off.

Q Well, let it go for the present.

The Court: Are they all on one page?

A No; they are distributed through my book in different places. It almost necessitates my doing it myself, to get them out.

Q Returning to the subject of the tabulation at page 2591, the well number 9 on January 9, 1908, stood at an elevation of 1330.1; on February 2, 1908, the elevation was 1348.1: those mean feet do they not, feet above sea-level?

A Yes, sir; those are feet above sea-level.

Q What in your opinion was the cause of that material rise in that time?

A Closing the gate in the bulkhead in the radia tunnel.

Q At what time in that year was the bulkhead closed? January 9th?

A I don't know whether I have any figures here or not by which I can give you the exact figures as to the date when it was closed, but it was about that time. I don't see any memorandum here as to the exact date; but it was closed after I made that measurement; on that date I made a measurement of the water in shaft number 9, and I also made a measurement of the runoff of the tunnel, 230 inches. The runoff of the tunnel was 230 miners' inches.

Q And on February 2, the discharge from the tunnel was 67.85 inches?

A Yes, sir; the gate wasclosed downabout that time first mentioned; my recollection is that the gate was closed down about the 10th or 11th of January , 1908.

Q The fluctuation in the discharge of the tunnel was due to the manipulations of the gate in the bulkhead?

A The rapid rise of water and the change of level in well number 9 was due to the change of level in that gate; the gate was closed in the tunnel, and the tunnel began to fill with water.

Q Now, the next elevation shown in well number 9 was

1353 feet, of date March 20.

A That is correct.

Q The water had risen five feet during that time?

A Well, from February 2 to March 20, the water had risen five feet; but the gates had been shifted prior to that date and there was more water being taken from the tunnel on March 20 than was being taken on February 2.

Q Now, that rise of water, when the water rises in the manner indicated there, does it rise only in the shaft of the well, the shaft over the well number 9, the pipe, or does it diffuse itself through the ground there generally?

A Well, I would naturally expect that it would diffuse itself through the ground more or less; the tunnel and all the artificial openings connected with it would ofcourse be at about the same level, controlled by the bulkhead gate, and the mass of earth would naturally absorb and respond to that rising water.

Q Now, the two measurements in April, the 13th and 27th respectively, the water in the well stood on April 13, at 1346.7, while on April 27, it was 1352.4, or a rise of about 6 feet in the two weeks; but the discharge from the tunnel seems to have declined from 173 inches on April 13, to 145 inches on April 27: that is what you would expect is it, that the water would rise in the well when the discharge declined out of the tunnel?

A I would expect when they closed the gate down, and reduced the volume of water flowing out, that would have some influence; that water would back up in the shafts.

Q Do those figures indicate it?

A They indicate the change in part.

Q Indicate the change caused by the raising or lowering of the gates in the bulkhead, do they?

A Yes, sir; in part.

Q And so with the other fluctuations in the fourth column of that tabulation, you understand that they relate to the raising or lowering of the gates of the bulkhead?

A The inference from those figures is that whenever the water reached,- for instance as it did on April13, 173 inches,- that there was more than the two zanjeros were using for their consumers, and they closed the gate down some and restricted the amount, and that on the later date, May 11 or June 8 for instance, they needed more water and would raise the gate a little, and they were on April 27, and that the water in the shaft number 9 responded.

Q Now, you will notice that those measurements, commencing in January, and extending through into April and May, April at any rate, were all in the non-irrigating season were they not?

A Yes, sir. Though I think there was some irrigation, some considerable, even in April, judging from the amount of water they took out here.

Q Is it necessary to open that bulkhead in the winter time in order to prevent the water from flowing out over the top of the shaft,- some of those shafts which reach down to the tunnel above the bulkhead?

A I don't know whether that condition has obtained or not; I know that the water level at the bulkhead shaft,

and more especially at a shaft just above it, the top of which is on lower ground than the ground where the bulkhead shaft is put down,-I know the water level is very near the surface there, but whether it actually flowed over the shaft or not, I don't know; I never saw it.

Q Do you know whether or not the bulkhead has been opened at any time in order to prevent the water from escaping from that shaft?

A No, I don't know whether it has been opened for that purpose or not; I supposed it was opened for irrigation purposes; I know the Cucamonga people have a great many deciduous groves, and they need water for early irrigation there, and they have made arrangements with the San Antonio Water Company by which they can use water during the early months.

Q Let me have your attention here to Plaintiffs' Exhibit 36 the conclusions from which were the subject of some strictures and animadversions by you in the course of your testimony; among other things as I recollect you took this date at the commencement of pumping by the San Antonio Water Company, which was pretty early in the year, and following it along for some time, you professed to find as I understood you, that the profile declined solely, as the result of dry weather; I make this statement merely to draw your attention to the subject. Have I stated with substantial correctness the inference which you deduced from this profile?

A The controlling factor, as you have stated, is the seasonal rainfall.

Q. That is your answer to the question is it?

A. Yes, sir; the controlling factor is the seasonal rainfall.

Q. You notice there that the San Antonio Water Company wells began pumping pretty early in the year 1904, and that the water declined, the flow of water, or the elevation of water, rather, at the well number 9, or 14, as per the plaintiffs' Exhibit 1?

A. Well, this profile, Judge Britt, in so far as the elevations are concerned, represents the discharge of water over the weir in the cement shaft; and the decline represents the decline in the volume of water; and I notice that in the early part of 1904 that there was quite a rapid decline, and it seems to have anticipated the pumping.

Q. Doesn't the decline seem to be substantially synchronous with the beginning of pumping?

A. It starts in earlier than the pumping and becomes very rapid; it starts in January 22; from January 22, on, the decline becomes very rapid, and the pumping does not begin until May or June.

Q. Didn't the pumping commence in January?

A. I think not; I think the pumping of the 16th street wells did not begin until - -

Q. The profile shows as I have stated it, doesn't it? Do you think that is an error?

A. I don't know whether it is error or intentional; the pumping began later than that in the 16th street wells.

The Court: Q. Who madethat diagram?

A. I don't know; I didn't.

Mr Stevens: Mr. Wright.

Mr Britt, Q. There was no pumping in the winter of that year?

A. Just a minute, Judge Britt, and I can tell you approximately the date when the pumping operations began.

Now, this profile has the words "pumping continuously" written upon it; in the word "pumping" the latter "P" begins about April 1, 1904, and the final letter of the word "G", looking at the scale, might be about the 18th or 20th of May; whereas the word "continuously" is over August, September and October;and that would indicate the way it is put on the plat that the San Antonio Water Company began pumping wells numbers 1 to 8 about April 1; Now, it misrepresents the facts, in that on May 19, the San Antonio Water Company began well number 8, and that on June 16, it began pumping well number 3; and that on July 1, they began pumping well number 5;and on July 7, they began pumping well number 4; and on July 30 they began pumping well number 2, and on September 20, well number 1; so it was really you might say the first of July, before the pumping was really on; so up to this point the plat misrepresents the facts - prior to the date when they began pumping; and well number 6 was far removed from this Eadie tunnel, north and east, and the pumping really began north of this tunnel, only about June 16th; and on June 16th or thereabouts the discharge had dropped down to about 185 or 190 inches, and in that I say your profile is incorrect; in other words seems to anticipate that the San Antonio Water Company might get to pumping those wells bye and bye; the curve antici-

pates it; if you follow that period of decline during the period they were not pumping, or that rate of decline, through the summer, you will find the reduction if they had not pumped, if the decline had continued as it had to that point, would have reduced the discharge from the Eadie tunnel lower than what it is really shown.

Q The words "pumping -" do not necessarily refer to wells 1 to 8. At that time, at the beginning of 1904, did not the discharge from the Eadie tunnel go up materially, because of the pumping operations which were going on there for the purpose of connecting the large well there, number 14, with the tunnel?

A My recollection is that there was some pumping of well number 14 early in 1904, but that did not last very long.

Q It lasted long enough to enable them to carry on their labors for several weeks, in the effort to make the connection with that tunnel, to get the water out of the ground so the men could work?

A I think that is probably true; that was the object of it as I unde stood, but those pumping operations did not continue through up to May and June.

Q No, they didn't. But when the tunnel was connected up with the well, along in January or February, 1904, there was a considerable increase in the discharge of water from the tunnel, for a time, wasn't there?

A Naturally, whenever you open any channel into a pocket of water, you immediately get a large discharge, because you drain down the ground above it.

Q Well, that circumstance explains this rise of the

profile line on Exhibit 36, or at any rate it tends to explain it?

A Well, that shows a super-elevation at that point, but it don't connect the discharge of the tunnel, and the decrease in the tunnel with the 16th street wells north of the tunnel, and that is what the profile purports to do; in that regard it misrepresents the facts.

Q I don't think it misrepresents the facts. I was endeavoring to bring your attention in the next place to the time, according to your statements when sometime in April, 1904, the pumping did begin by the San Antonio Water Company's wells 1 to 8.

A Well, I have given you the dates; it was really practically the first of July, before there was any considerable pumping.

Q The decline was steady, with but slight interruptions, until the next January, wasn't it, January, 1905?

A I think along about January 8th or 9th, 1905, we had heavy rains, and the effect was felt as shown in this curve on the discharge of the tunnel; if there had been no pumping at all the decrease would be normal from the hydraulic conditions in the tunnel; the tunnel began to draw on its sources at a lower level; in other words there was a greater easement of the water; the conditions obtained that obtain in all tunnels, namely, that the supply decreased continuously, until there was additional water poured into its source above, and the pumping operations have nothing to do with that in my judgment; it is simply the seasonal condition that caused it.

Q You have reiterated the statements you made before; and there are one or two or three items in connection with this profile that I want to call your attention to, for the purpose of illustrating your views, touching other considerations: As you just now stated, the water appeared to decline in the tunnel until January, 1906; that is true, isn't it?

A The curve indicates that.

Q And your own measurements produced here of the pumping operations of the San Antonio Water Company show that those operations were continuing, until about the 7th or 9th of January, ~~February~~ 1906, do they not?

A That is my recollection of the record; yes, sir.

Q Now, isn't it a fact that generally the water in wells and in tunnels, and in streams, when not affected by some extraneous source, begins to rise along in October of each autumn?

A Well, that is one of the seasonal effects, and the rainfall helped out in this; you note, Judge Britt, here--

Q You have answered the question, Mr Trask; let us ask another.

Mr McKinley: We think the witness should be allowed to finish his answer.

A You will note here that in the latter part of December, the discharge of the Eagle tunnel was down to 130 inches and a fraction, and that along about sometime in February, it had gone up to 147,- only a matter of 25 or 35 inches; there had been no change or marked change; ofcourse on this diagram things are distorted very materially; but that would

be naturally expected with the rainfall and change of conditions at that time of the year; that is not abnormal.

Q We will get to the rainfall presently; it went up there from January 4 or thereabouts to February 1 or thereabouts, from a discharge of 171 inches, to a discharge of 147 inches did it not?

A Yes, sir; in a period of about 40 days, something like that.

Q From January 1 to February 4?

A No; from December 24 to February 4, which makes about forty days.

Q Yes. January 8, the pumping operations of the San Antonio Water Company ceased?

A They ceased when those heavy rains came.

Q The water had declined right along as I have stated until this time?

A It had done just that every other tunnel does; it declines during the summer and spring.

Q And rises in the Autumn?

A Rises in the Autumn, following the climatic changes, influence of rainfall and so forth; examine the San Antonio tunnel, the Frankish and Stamm tunnel, and any other tunnel, and you will find those variations exist, although there has been no pumping going on within ten miles.

Q Well, just answer my question if you please, without proceeding into a lateral lecture, before you get to the end of it. Isn't it a fact that tunnels, wells, streams, do in general rise in the Autumn of the year, whether it rains or not?

A I think we often observe that; some years there are exceptions, but I think as a general rule our streams increase as the days become shorter, and there is a change of the temperature; barometric pressure has its effect even on artesian wells.

Q Now, we will proceed along through the year 1905: until August 1905, there was continuous pumping by the San Antonio Water Company of the wells of that company north of 16th street, and the water discharged from the Radio tunnel went down didn't it, until the company stopped pumping the next November?

A Well, the discharge of the Radio tunnel began its decline along about August 16th, and kept it up until about October 16, according to this plat, when there was a slight increase of the discharge of the tunnel; it followed the same law as the preceding year - seasonal conditions.

Q It followed also the same law of the pumping conditions, didn't it?

A Not necessarily; no, I think it did not; as a matter of fact pumping operations were indulged in during that period of the year when water is absolutely needed; but it is likewise true that all tunnels drop in their discharge; that does not mean that because pumping operations were carried on at the same time that they were necessarily interfering one with the other or in sympathy; not by any means; unless there were some other facts to establish that sympathy; in this particular case of the Radio tunnel, we have noticed the facts from your tables and from ours showing non-interference; consequently the relationship seems to be one of

seasonal relationship, depending upon the rainfall, and the other factors which go to control all underground and surface waters.

Q You observe that when the San Antonio Water Company ceased to pump in the Fall of 1905, that the waters began to rise in the Eadie tunnel?

A Yes, sir; and I further observe that by looking at the rainfall table that we had rains at that time, too.

Q And it continued to rise along through the year 1906, didn't it?

A The discharge increased more or less during the year 1906.

Q And there was no pumping of the wells in 1906, was there no pumping of the San Antonio Water Company's wells in 1906?

A No; because there was a very heavy late rain in that year and - -

Q Wait a moment; you have had your inning now on the subject of rainfall on several occasions. I say there was no pumping in 1906 of the San Antonio Water Company's wells?

A That is correct; there was very little pumping; some pumping to irrigate the Rubio place; no substantial pumping.

Q You say the tunnel variation follows the seasonal influence: Why didn't it decline in 1906?

A It seemed to have a combination of two very wet years; the season of 1904-1905, gave a rainfall of 30.72 inches, and much of that supply would not be felt in that tunnel for a long time; some of it was felt almost immediately; in the year 1905-1906, which preceded this season of non-pumping, that is the irrigation season of 1906,- there was very heavy rainfall, and the greater part of it came late in the season

and there was over 30 inches, and the result of the discharge from that tunnel indicated that it was benefitting by the combined rainfall of two seasons, one following the other.

Q It does not follow the seasonal rainfall - -

A I think it does; an accumulated condition.

Q It does not follow the seasonal rainfall uniformly; if there happened two years of ordinary, or something more than ordinary rainfall, then that tunnel does not have any sympathy with the rainfall?

A I think it does sympathize directly with it; I think if you look at the records of other tunnels you will find that to be true; and if you get a number bunched together, your tunnel will sympathize with the combined effect of those years of heavy rainfall, where they are together; you take the San Antonio tunnel and analyze the records of that, and you will find the same general conditions obtain.

Q Now, we will go back here for a moment to the beginning of 1905, when in that year, 1905, in January, the San Antonio Water Company wells ceased pumping, and there was immediately a rise of the discharge of the Sadie tunnel, and you say that was due to rainfall?

A Seasonal conditions; the same seasonal conditions that affect artesian wells, as well as the rainfall.

Q Do you mean to say that the rain falling on the ground adjacent to the Sadie tunnel sunk down so quickly that it flushed up that tunnel?

A No, I don't say anything of the kind; the surface of the ground there is probably recent material to a certain depth, while the tunnel supply is being drawn from the older

alluviums, and the source of supply is up near the mountains.

Q. Do you mean to say that the rainfall up there at the foot of the mountains flushed up that tunnel as shown there, within the space of two or three weeks?

A. I am not sure; I think likely it may have received some benefit in that length of time; even the amount of increase is not abnormal from a change of barometric conditions; from 121 inches to 147 inches, practically 26 inches, might be accounted for by barometric changes in a few days. Take the season of 1905, when the rains began, at the end of the season, late in the Fall, November and December, it began to rise, and it kept up during the year 1906; but in connection with that rainfall and that high elevation of that curve, you must recollect, and the records show, that during the Spring of 1905 and 1906, the San Antonio Water Company had vigorously poured water into the gravels up near the mountains, and that they had done this with the idea of saturating those gravels, and these records show that they succeeded, and that not only the combined rainfall of those two years, operated to maintain that tunnel discharge, but the water that they had put into the gravels, up near the foothills, augmented it, and increased it, and here we get the effect of it.

Q. Do you mean to say that that dense impervious material in which this tunnel is bored was receiving there in the course of two or three weeks the water which was poured into the gravels up at the foot of the mountain?

A. The water had increased but very little here; the seasonal conditions might account for all the changes that have

taken place here in 30 or 60 days; take 1905 - I have already spoken of the year 1905 - Take 1906: the water increased from 119 inches, in 60 days, up to 136 inches; there was nothing abnormal in that.

Q In 60 days?

A Yes, sir.

Q That was a rise of 17 inches?

A Yes, sir.

Q Then the effect of the two seasons combined caused that rise?

A It kept right on rising throughout the summer, of 1906.

Q That was an increase during 60 days?

A I just picked those two dates out on the profile, and it represents approximately the increase; only a few inches in 60 days; and I say that the amount of rise could be easily accounted for by seasonal conditions, readily; there is nothing there that needs any comparison with pumping.

Q Isn't it a heap more reasonable, Mr Trask, - now, remember the fairness with which you are supposed to judge of these conditions, following the assertion you made to Mr. Waters Yesterday, isn't it a heap more reasonable to say, that when you find the water rising so fast in the tunnel, following the cessation of pumping, which had been going on for weeks and months, only a little way to the north, the abstraction of the water and taking it away by the San Antonio Water Company,- that it is due to that cessation of pumping? Isn't it more reasonable?

A A novice might jump to that conclusion, but a man versed in the hydraulics of this country, and underground waters

and rainfall, would look around to see what the facts are; he would not jump to the conclusion; if he analyzes the facts he would draw the conclusions I have drawn there, if he is a fair-minded man.

Q. That is all; there is one more question I wish to ask: Mr Wright called my attention to the circumstance that on your Exhibit 2 the contour lines on top of the main Red Hill have been connected; they are continuous, on top of the Red Hill; we understood they were taken mostly from Mr Wright's contours, as shown on Exhibit 1: I want to inquire whether you ran levels, or took any measures to ascertain the correctness of these contour lines where they are made continuous on the Red Hill, as depicted on Exhibit 2, or whether you merely projected lines and made them continuous on the summit of the Red Hill, from an estimate of the location of the lines?

A. I connected these lines up, or instructed my draughtsman to do so, after consulting the Government Topographical Sheet, and they are approximately correct.

Mr Britt: That is all.

Mr Waters: I would like permission to ask a few questions:

Mr Waters, Q. This water of the East side which you figured in 1908, to be 260.14 inches, how much of that was pumped water for the irrigating season?

A. Your question refers to the 261 inches of the east side water as I understand it?

Q. Yes, sir?

A. 145.9 inches.

Q Now, for the irrigating season of how many months?

A I don't know how many months; I haven't figured it out.

Q Well, six or seven months?

A I would assume six months.

Q Now, reduce it to annual inches and tell us how many inches it was?

A That would be equivalent to say 73 inches in round numbers.

Q Now, add that to the gravity flow of the east side - what does that mount to?

A The gravity flow was 115 and a fraction inches.

Q Plus the annual pumped?

A It would add up 188 and a fraction inches.

Q That was what was actually drawn out on the east side wasn't it?

A That is the amount, if you care to average it over the whole year. assuming the gravity water was normal.

Q That is the annual output?

A That is the annual output on that basis.

Q Now, you said a while ago that the other thing was the available output: which is it that depletes a basin or reservoir? That which is available to be brought out or that which is brought out?

A In case of surface waters there is much depletion that goes on during the winter months - .-

Q Please answer this one question: Which is it that depletes the reservoir? That which you do bring out or that which you can bring out?

A It is that which you do bring out which depletes it;

it doesn't make any difference how you take it out. I would like before you go any further, to make a little comparison in connection with that water.

Is it something explanatory of your answer, or is it something you wish to volunteer?

A It is explanatory of the answer and the table which you are attacking: I will call you attention to the fact which appears in this same tabulation, that in 1898 the total east side water, which was gravity water at that time amounted to 180 inches, and that was prior to the pumping operations of any company.

Q Please answer me now, what explanation that is of the former answer, or is it a mere argument?

A It is a mathematical demonstration of the conditions on the two different dates; you are attacking the method I have used in this table, and I am making a mathematical demonstration, and I am showing you that what I am doing is fair and reasonable and consistent.

Q Well, I mistook your function; you are arguing it; if that is your function proceed and finish it. That is all.

A Now, if you compare the amounts, after converting as you have done, or as I have done at your request,- the pumped water,- the annual inches for the year 1908 I make 188 and a fraction inches; now, that was a year following all this pumping and all the changed conditions; now, if you compare that with the year 1898, ten years prior, with a gravity discharge of 180 inches, it shows under present conditions you are getting in annual inches from your sources about 8 1/2 inches more than you were getting ten

years earlier; I do this to show the fairness of my computation.

Q And you pick out what year? 1898, in the center of the four years of drouth.

A It was the beginning of the dry period; the year 1899 and the year 1900 were dry years and followed it.

Q Don't you know that the years began to decline in rainfall before 1898?

A I know that the three years of minimum rainfall were the ones that I have enumerated, although the preceding ones were low.

The Court, Q You and several other witnesses have spoken of wet years and dry years; I suppose you mean by a wet year, one that is above the average in the matter of rainfall, and by a dry year, one that is below the average?

A Yes, sir; in general terms.

Q What is the average in the vicinity of the Red Hills?

A The average based on the 38 year estimate, is, from the Harwood guage, 22.59 inches.

Q That is at Upland?

A That is right in this immediate basin from which all these figures that I have put in have been procured.

Q Do you mean you have used the Harwood figures or the San Bernardino figures?

A I have used the Harwood figures, as they were taken at a point within the area of the watershed of the Cucamonga Canyon; I took the average of the Harwood table for the 17 years that it waskept; and then by comparison with the San Bernardino record, I got it for the 38 years.

Q To get an average you have to take it for 38 years do you not?

A Well, I compared the Harwood record with the San Bernardino record for the same period of years that the Harwood record was kept; and by comparison and deduction from the San Bernardino record for the balance of the 38 years, I got the 22.58 , which would be a reasonable average for the 38 years if the Harwood guage had extended over that period.

Mr Waters, Q Will you have the kindness to make me one answer, without first making a long explanation. Don't you know that the year from July, 1897, to July, 1898, showed only 8.24 inches of water as rainfall fell in this locality; and that that was a very dry season for rainfall?

A I have not referred to that table; if it gives that number of inches for San Bernardino, for that period, I presume it is correct.

Q Don't you know that the San Bernardino table also gives '98-'99, asbeing 7.49?

A I have not looked at the table just now; I presume you can read it.

Q You were telling us a while ago that 1898 was not in the dry period?

A I did not tell you anything of the kind.

Mr Gregg: You asked him if it was not in the middle of the dry period and he said it was the first of the three years of minimum rainfall; if you look at the table from which he has given his evidence, you will find that the statement

is exactly correct.

Mr Waters: That is all I care to ask the witness.

Mr Goodsell: There are a few questions that I would like to put to the witness.

Mr Goodsell, Q In reply to a question by Mr Britt, you spoke of the wastage from the bulkhead in the Cadis tunnel; I understand from that, that there was water flowing past the bulkhead, down through the tunnel; I understood you to speak of it as water wasting?

A Well, wasting in the sense that it could not be controlled and held above the headgate; it was not wasting in so far as that the water was wasted; after its passage by the bulkhead it came into the tunnel, and flowed out through the tunnel over the weirs, and was divided between the two companies, and was used for domestic purposes; but it was wastage only as regards the inability of the companies to construct a bulkhead there which would stop all of the water, and stop all of the flow out of the tunnel.

Q Do you know whether or not during that time any more water was passing the bulkhead, and flowing down the tunnel, than was required for use by the parties who were entitled to take it below?

A I do not know; I have not heard of any quantity of water passing the bulkhead and going into the pipe lines that was not consumed and was not needed; I do know that the needs are considerable of the two companies, and they have regulated the volume they need by their agreement as between themselves; that the water is not wasted in that sense,

and has not been since the bulkhead was put in.

Q As to the construction of that bulkhead, did you personally on behalf of either the San Antonio Water Company or the Ontario Power Company, conduct any negotiations with the Cucamonga Water Company, as to the construction of that bulkhead?

A I did not.

Q Were you present at any such negotiations?

A I was not.

Q I understood you to say a day or two ago that the construction of that bulkhead was delayed for a considerable time by the refusal of the Cucamonga Water Company to join in that construction?

A I so stated.

Q Have you any personal knowledge whatever as to that fact.

A I have the knowledge of the statements of the President of the San Antonio Water Company to me, as to the reasons why he didn't go ahead and put the bulkhead in; the plans had been prepared and the ground had been studied for a long time prior to the construction of the bulkhead; he gave me the facts; I know him to be a man of his word.

Q In your testimony you did not state that you had been informed of that fact by the San Antonio Water Company, but you stated directly that the construction had been delayed by the refusal of the Cucamonga Water Company to join in that construction: You did not mean to state that as a fact within your own knowledge did you?

A Well, not in the sense in which you ask your question; I stated it, so far as I was personally concerned, it was

a fact; I was satisfied to accept it; the statement of Mr Leake at any time I always accept; I have known him for too many years to question his statements; but the statement came to me second hand.

Q. Now, at one time, when you were measuring water from the Radie tunnel - I cannot refer to the exact time - but you stated that you made the measurement at the weir near the division line between the 90-acre tract and the Ontario lands to the west, and gave as one reason for making the measurement there that the Cucamonga Water Company was taking more than its share of the water at the mouth of the Radie tunnel: do you recall making any such statement?

A. Well, I don't recall making the statement that that was the reason I measured the water in the cement shaft, which is the point you refer to, near the northwest corner of the 90-acre tract; I don't remember stating the reason why I did it was because the Cucamonga Water Company was taking water that did not belong to them; I stated the reason why I used the figures that I obtained at that point over that weir, was because they correctly represented the amount of water due the San Antonio Water Company, whereas the water measured over the weir which recorded the amount of water going to the San Antonio Water Company, at the mouth of the tunnel, did not correctly represent the amount due the Water Company, as the Cucamonga Water Company were taking more than belonged to them from the Radie tunnel; so for the years 1904, and 1905, and 1906, and 1907, up to the time the bulkhead was put in, in computing the amount of water that

the San Antonio Water Company was entitled to, I used the measurements made over weir B, in the cement shaft, near the northwest corner of the 30-acre tract, in preference to the measurements made over weir A, at the mouth of the tunnel; the difference in those measurements on the same dates would show that the volume of water that the Cucamonga Water Company was taking which belonged to the San Antonio Water Company.

Q Now, do you mean that the Cucamonga Water Company was habitually or usually taking more than its share of water, or that it was getting more than its share at those particular times?

A Well, I mean that during a period of a year or more that the Cucamonga Water Company was taking water that belonged to the San Antonio Water Company, and doing it on each of the dates that I made measurements at the tunnel; and I assume that their practice continued the same during the days intervening, between the dates of my measurements.

Q And was that because of the character or condition of the weirs at the mouth of the tunnel?

A No, I think it was because of the character of the zanjero.

Q Afterwards a new weir was put in there, wasn't there?

A Well, I think during the period of that time that I have enumerated the new weir was placed, but I know the practice was continued for some little time after the new weir was in and finally set.

Q Your implication is if I understand you, that the zanjero of one of those companies,- I infer the Cucamonga Water Com-

pany was wrongfully taking more than a proper share of the water?

A. Those are the facts that I intended to put into my statement.

Q. Upon what do you base that charge?

A. I base it on the facts,- on the measurements of the water at different point in the Cucamonga tunnel, and a knowledge of the ownership of lands and waterrights in the tunnel.

Q. What is the effect upon the water, in passing from the division line, say at that shaft where you made the measurements, in passing down through the tunnel, to the mouth of the tunnel? Is that water a gaining or a losing stream?

A. I think the measurements show there has been very little difference; they have checked out; the sum of the measurements up at the 90-acre tract have checked out quite closely with the measurements made at the mouth of the tunnel, if you take into consideration the total mount of water measured into the tunnel from the wells of the Cucamonga Company on the 90-acre tract, and the supply coming into the 90-acre tract from the property of the San Antonio Water Company and the Ontario Power Company to the north and west.

Q. About how great a discrepancy did you find in the amount flowing across the line from the lands of the Ontario Power and the San Antonio Water Company, and the amount going to Ontario?

A. I don't remember any of the figures, but I do remember it was insignificant; it might be easily accounted for by the personal equation of the individual making the measurements.

(Last question and answer read to witness.)

A I misunderstood that question entirely; I understood that question to be a comparison of the amount coming across the 90-acre tract, as compared with the amount that flowed out of the tunnel at the mouth; I entirely misunderstood that question, Judge Goodcell.

Q Answer it now?

A The number of inches amounted to considerable; I think some of the measurements show 40 or 50, and many show 15 or 20; I could not give you those without comparing the measurements over weir A and weir B on the same dates, and a comparison of those tables, which are in the records, will give that amount.

Q I want to ask you a few questions based on the geologic sections or diagrams that you have on the defendants' exhibit 4, in which there is a fold represented, as indicating in a kind of an ideal way the uplift of the Red Hill: In the first place how were the mountains themselves formed? Were they also formed by some uplift of a similar character?

A I think that is correct.

Q And at some time prior to the uplift that formed the Red Hill section?

A Yes, sir; the detrital material could not have eroded and made the silts which I show in those different diagrams until a period subsequent to the uplift of the mountain ranges themselves.

Q As I understand you the entire fill of the valley, both what you indicate here as the old alluvium, and also what you term the more recent alluvium has all been eroded from the mountainrange to the north?

A That is true, and there may be other formations lying below of which I have no record or knowledge; no wells have been bored to determine that.

Q But so far as you know the fill of the valley has been formed by erosion?

A Yes, sir; the materials which go to make up both those formations have been transported by erosion.

Q And not only down to the Red Hill but far beyond the Red Hill?

A That is correct; all through the valley.

Q Now, generally speaking, the effect of erosion tends to a leveling, does it not, to the taking of material from the higher points, and depositing that material at lower elevations?

A Yes, sir; that is a process that is constantly going on, and has been during all time, in the crust of the earth.

Q And the amount of material that has been carried down from the mountains and deposited to fill the valley below has been a very large quantity has it not?

A It has been very considerable; yes, sir.

Q And has the result of that been to lessen the height and magnitude of the mountains?

A That has been the result in so far as eroding the tops; but at the same time, readjustments in elevations, by which there has been a change in different parts of the earth's surface, have been going on during all this period of erosion so that while the tops of the mountains have been wearing off, they may have been rising during the whole period or during a part of that period that that erosion has been

taking place.

Q The uplift of the mountains I suppose has been a gradual process?

A Yes, sir; in most cases that is true.

Q Possibly they may be rising even yet?

A I think that is true with many of our mountains, in some of our ranges.

Q Isn't it a fact that in all probability in times past those mountains were much larger and much higher compared with the floor of the valley than they are now?

A Well, they may have been; but my opinion is that the difference in elevation between the valley and the tops of the mountains has been increasing rather than decreasing, although when erosion began there, there might have been periods of time when the reverse was true; the erosion began the moment the summits appeared above the surface of the water, and the time when the mountains were in process of rising covered long geological periods; I have made no effort to ascertain that time or even speculated upon it; I do not know that these mountains have yet ceased rising; I have no records that will show that.

Here the Court takes a recess until tomorrow, Wednesday, March 24, 1909, at 10 o'clock a.m.

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IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

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Cucamonga Vineyard Co. et al.,

Plaintiff

vs.

San Antonio Water Co. et al.,

Defendant

Vol. 37.

Wednesday, Mch 24, 1909

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I. BENJAMIN, Official Reporter

Wednesday, March 24, 1909. Thirty-seventh Day.

F. E. TRASK.

(Cross Examination Resumed.)

Mr. Goodcell: Q Mr. Trask, at the time of adjournment last evening you were speaking about the upheaval of the mountains being a gradual upheaval: was that opinion based on anything especial or peculiar to those mountains or because that is the usual way in which mountain chains rise?

A I had no special reasons for that in my mind. That is the generally accepted theory of geologists as to the formation of the Sierra range.

Q In the formation of the valley fill where we find gravel and boulders, that deposit is necessarily laid down by a free flow of water, is it not?

A Well, the coarser materials require a body of water that has a considerable velocity in order to transport them.

Q And the finer material is laid down where there is a less rapid flow of water?

A The first material laid down by any transporting body of water is the coarser material, and so on. The water acts as a concentrator or separator of materials. In the process of transportation the coarser material is laid down first and then the next coarser. The lightest silts are carried the greatest distances.

Q Now the fold that you have referred to some days ago, the uplifting and forming of the Red Hill, have you any definite idea of the manner

of the valley fill or the amount of erosion that has been brought down and deposited there before that uplift?

A I cannot, for the reason that so far as I know there have been no wells that have penetrated to the bottom of that fill. It would be necessary to have some such knowledge before you can estimate the thickness of it.

Q And when that fold occurred, resulting in the Red Hill formation, was that also probably a gradual uplifting?

A I think that is true of all earth movements except those resulting from volcanic disturbances or earthquake disturbances, and I think that was true of those hills -- that they were thrown up gradually.

Q And with the information which you now have and all the observations you have made, you don't see any evidences of volcanic eruption there?

A No; I don't know of any facts that could be used to draw that conclusion from. Such facts as we have indicate that it was a folding process rather than an eruptive one.

Q In your testimony you have spoken of that fold or upheaval as being parallel to the mountain range: What is your idea as to the extent of that fold, -- as to how far it extends east and west?

A My idea is that it extends throughout the valley in Southern California, probably from some points here in this end of the valley westerly, and it may go clear through to the ocean. There are certain outcroppings that indicate that that is a reasonable geological deduction.

I have mentioned the Indian Hill and the point intermediate between the Indian Hill and the Cucamonga Red Hill where I know the same formation comes nearly to the surface, and I have mentioned some hills near Pasadena and others near the San Dimas wash which bring water up in the same way back of them. That is, great gravel reservoirs in which water is found. The conclusion I have drawn is that the same forces that acted there to throw up the Red Hills as we see them there were in operation along the base of this range of mountains as they extend westerly.

Q Now, when that Red Hill formation at Cucamonga was uplifted, what is your idea as to its being a continuous hill or range along there?

A Well, I believe it was continuous easterly and westerly, and generally in a parallel direction with the mountains on the north, but I do not mean by that that it was regular and presented an even cross-section throughout its entire length; I would not expect that by virtue of the fact that the alluvium in itself, probably was not regular on the surface at that time; at some points it was probably higher than others; that is, if you take an east and west line, or a line along the range of hills as they are now found, that you would not have a level line on the surface of the ground. The conditions and forces that obtained during the time that alluvium was being laid down were not regular and constant at different points along the foothills throughout the entire length of the area where those hills are found; but those forces were acting the same as they are acting today on

the surface of the debris cones; at places they were built much higher than others; so that in the uplift there would have been considerable irregularity and variation in the elevations at different points, along the axis of this uplift. Q So that at some points there would be what you might call canyons or ravines separating one portion of the uplift from the other?

A I would expect to find saddles or low points at some points, and at other points I would expect to find higher elevations, which would represent remnants in that fold.

Q Now, between what you call more distinctively the Red Hill, as the hill in which the 70-acre tract is situated, and the hill on the east of the Cucamonga Springs and Y tunnel, there is a depression through which the natural channel of the Cucamonga Creek now flows?

A There is one of the flood channels of the Cucamonga Creek passing through that low point you speak of.

Q In your opinion how was that channel formed between those two sections of what we may call the Red Hill?

A Well, there are several factors that enter in there: one would be the character and physical characteristics of the Red Hills, which were variable and not constant; some places the material would be closer and more compact, and afford a greater resistance to the demuding and eroding influences; and another factor is the possibility of there being a low point there when the hills were thrown up, and later the accumulation of detrital matter north of the hill and filling the mass to a sufficient level, which resulted in flood waters finally finding an outlet at that point

through the Red Hills in the shape of a spillway, and that after that outlet was secured, there would be some cutting and eroding there and the transporting of recent material through that channel into the valley below.

Q. Don't you think that there was naturally a ravine or kind of canyon through there, through which water flowed previous to any erosion there?

A. I think not, Judge Goodcell; if that were the case,- if there was a canyon through there, you would not have resistance sufficient there to bring the springs up at the elevation you find there; that very fact would have destroyed the cienegas, and made it impossible for any cienegas to exist where you find them, right in that channel; on the contrary the presumption is that that Red Hill formation is very close to the surface under the channel, and in the channel where the surface waters flow, and that that material was very compact there in places, and resisted the erosion; and that is the reason why you find the cienegas at those elevations in the channel.

Q. Then you think that the present channel of the Gila River through the Red Hill country there is an eroded channel?

A. Well, it is eroded in so far as the actual cut where the water at the present time flows during floods; there is a notch which shows the effects of erosion, but I don't think it has any great depth; I think the recent material which lies on the surface of that flood channel and covers the older alluviums from which the springs and cienega waters emerge,- I think that recent alluvium is only a very light depth; I would not expect to find it, only a few feet in depth - simply

a paving of the channel.

The Court, Q. That is the deepest well in the vicinity of the Red Hill, and by the deepest I do not mean from the surface to the bottom of the well, but that well has its bottom nearest to the ocean level?

A. I cannot answer that offhand; I think I have some records of those different wells, a chart which was used in the McPherson case, from which I can take data, and compare with that I have of the recent wells, wells that have been bored since the McPherson case, and answer your question definitely; my impression is that some one of the wells near the Stowell tunnel, penetrates the crust of the earth more nearly to a sea-level elevation.

Mr Britt, Q. The Eadie tunnel is the same as the Stowell tunnel isn't it?

A. Yes, sir; the Eadie tunnel.

The Court: I wish you would investigate the question as to the depths of the different wells in that vicinity, on a sea-level basis, and furnish that information, if it will not involve too much research.

A. I will do so; I think it will take us but a few minutes; I think I have a plat on which the well records have been charted, so that I can take that off readily.

Mr Goodcell, Q. You think then that formerly the Red Hill formation extended clear across where the present flood channel of the Cucamonga Creek passes through?

A. I think that it not only formerly extended across under that creek channel, but that it does so now.

Q. You think it formerly extended across on the surface

at a higher elevation than it does now?

A I certainly do; I think the shale and mill formation, both that exposed above the recent formation, which we see now, and that even below, has all been denuded and eroded and degraded; the very elements which have eroded the mountain range to the north were working during that same period on the hills themselves when they projected up and became hills, and there was a continuous and constant readjustment of levels going on on those hills, as well as on the mountains to the north; so I think there are no points in that red formation which represent surface points of the ancient alluviums at the time the uplift began; that is the reason why you find that admixture or intermixture of the ancient and recent alluviums at points of contact; where the two come together in different areas, you find a condition where it is frequently very hard to tell in which formation to class that for that very reason.

Q Branching off just a moment on those two formations, you speak of the old formation and the recent formation: You do not mean do you that there ever was any separation of formation, any break in that formation, any distinct line of demarcation between the old and the new?

A I would expect that the process of distributing silts and the building up of the alluviums in the valley was a continuous one; as far as I know, there was no record showing to the contrary.

Q What are the causes of uplifts?

A The main causes have been accepted as the super-imposing of silts and detrital matter and alluvium upon the earth's

crust some distance from the mountain ranges, until there has been a readjustment of the load the crust was carrying, when there necessarily followed a readjustment of the materials themselves. That is characteristic of mountain ranges; beginning with, for instance, the Rocky Mountains, they first appeared as the continental divide, the oldest formation; the material washed from them and spread towards the ocean to the west, until it acquired a thickness of many thousands of feet, when the pressure became such upon the crust of the earth that a balancing of forces took place, and we had the Sierra Range thrown up; long geological periods following that we had the Coast Range, resulting from the same cause.

The Court: You have suggested a very interesting controversy as to which was thrown up first: John Muir claims that it was the Rocky Mountains, while the theory of Professor Dodge is that it was the Coast Range that was thrown up first.

A. Well, I would accept the former theory; I see no reason for accepting the latter.

Q. Does not the uplift presuppose a geological fault in many cases?

A. There might be cases where it would indicate the correction of a geological fault; but I am disposed to accept the theory of the readjustment of loads, and the resulting readjustment of balancing forces. For instance if you cut on a bog and build a railroad grade on that bog, and overload that crust, you will create something of the same condition that geologists explain the formation of the mountains upon/

That is you overload the crust to a point where there will be some sinking; and whenever you create a sinking you displace material underlying and force up an equal volume of material to that depressed.

Q Isn't that readjustment of the earth's crust that you speak of, that which causes the correction of faults in many cases?

A Well, it frequently produces faults, in many cases; the process is more the production of faults than the correction of them.

Mr Goodcell, Q I understand that between the Red Hill formation and the mountain, the fill, so far as it has been ascertained, is mostly gravel and boulders?

A Well, it is largely gravel and boulders; the wells are what we call shallow wells and they have not penetrated through that recent formation. The underlying formation is the ancient alluvium; it is only a question of carrying the wells to sufficient depth to penetrate the formation which is supplying the water to the Indio tunnel, and to the wells near it; it is only a question of going deep enough.

Q Well, take the 16th street wells: some of those are down to a depth of 600 feet are they not?

A I think there are some even lower than that Judge Goodcell; I think there are some around 700 feet; ofcourse there are some much less.

Q What is about the greatest depth of any of those wells?

A Well, it has been sometime since I looked them up, but I have an impression there is one that is 710 or 711 feet below the surface; that is only approximate, however, but I think

that is about what the records will show.

Q And those wells have not penetrated beyond the gravel fill there?

A They are all in wash material, and in none of those wells were artesian conditions developed; that is the result of the boring was that they did not penetrate any of the strata wherein waters are under pressure, and feeding the sources of supply below.

Q Although the pass through some strata or lozenges of clay or closer material, still right down to the bottom of the well they were in gravel, were they not?

A I think some of them stopped in very close material; it has been classified as clay, and possibly was in considerable part; that is usually the practice in those wells; they have usually made a practice of stopping in some close material; but none of the strata lying above the close material in which the wells have been finally stopped, none of those gravel strata above, in which they have cut the wells, and from which they are drawing the water, have been under pressure; that is, the waters have not been under artesian pressure; there has been no raise in the well.

Q There have not any of them penetrated below the gravel fill?

A They have not; they are all in detrial matter, each and every one of them.

Q Now, when the Red Hill was thrown up, did that create any brake there, or any dams, so as to obstruct the flow of the water from the mountains on down to the valley below?

A I think that is what it did; that is the fold itself was a natural dam or dike resisting the direction of flow of water from the canyon, diverting it and controlling it.

Q Wasn't there a free flow around the east and west end of it at least?

A Well, at different times there have been flows around those hills, especially to the west. The facts point to the hills having raised much faster than the fills on the north of them, and indicate that the overflow over those hills in and near the Red Hills was cut off at those points.

The Court: Q What facts do you mean point to that conclusion?

A If the rise of the hills had been slower than the fill on the north, the flood waters would have eroded those hills away during the rise. The process of the levelling down of those hills would have been sufficient to have eliminated them as they came up. That may have been the case in some points. West of the Red hill, as shown by the borings, when you get a third or a half a mile west of the Red Hill, show that the surface of the Red Hill is quite deep below the wash. Wells have been put down to large depths and have not penetrated below the Red Hills. But that is not true ~~xxx~~ xxx easterly of the Red Hills within the limits of the area that we have had under discussion. I don't know how it might be if you went three or four miles east.

Mr. Goodcell: Q You think that is right? That the Red Hills must have risen faster than the valley was filled, or they would not have risen above that level?

A That is my interpretation.

Q Isn't also true that at all stages there was a free flow of water from the mountains past the Red Hill to the west and to the east?

A Well, there are no indications on the east of the Red Hills that that was true at all times, and even on the west I would be inclined to doubt that, although the hills seem to be very much lower on the west.

Q It is true, at any rate, that for at least 600 feet below the present surface, that down to that depth there has been a free flow of water past the hills?

A Well, I can't draw that conclusion from the records that I have down to that depth. There has been a flow of water through the old alluviums in some of the older channels through the hills. If we take the Stowell wells, for instance, -- and I think some of them are more than 600 feet deep,-- they have penetrated into the formations which have supplied artesian water, and that indicates that through that old alluvium through these hills at that depth water has passed.

Q Suppose now that that Red hill had formed a dam across there so that the water did not flow around the end of it: Wouldn't that have resulted in a lake formation above?

A It would have made a lake formation, and I think that was partially true. It may have been to some extent. That while the gravels and coarser material were being laid down near the foot of the mountains, the finer silts were settled and formed some of the stratified material that would create quite a pronounced dividing line between the ancient alluviums and the recent alluviums.

Q But if there had been any such thing as a lake formation there then the deposits in that area where that still water or backed-up water was would have been comparatively an even deposit, would it not?

A Well, that would have depended on the method by which the deposits reached the lake. For instance, if the rainfall had been light and the heavier material had been deposited near the mountains, you would have found light silts. But we know that we have those heavier storms in the mountains w where even the heavier material would have been carried into the lake.

Q Do you mean that boulders would have been carried into the lake?

A I mean that it would build up a fan out into the lake and project that material out. You could get those conditions in lakes where you have torrential ~~xxtrxxx~~ storms.

Q That is only where the lake has been filled up so as to make a surface flow.

A Even the finest particles of matter are working to that end-- the filling up of the lake-- It is only a question of degree.

Q Take those 16th Street wells: They are down pretty close to that Red Hill formation?

A There you ask a question that I know nothing about. I don't know how close the bottoms of those wells are to the old formation, and no one else knows. No wells have been put down to determine where the old formation ~~begins~~ begins and the recent formation ceases. So far, that is an unknown factor.

Q How far are they from the Red Hill formation as it appears now on the surface? Only a short distance?

A Some of them-- take wells #4 and 5, they are perhaps within the limits of from 500 to 1000 feet. Well, ~~xxx~~ ~~may~~ 5 may be nearer to where the formation shows on the surface.

But then the question enters into this proposition, that that Red Hill formation on the surface, so close to well no. 5, immediately south of it, in all probability is material which has been transported there by denudation and degradation of the hill itself to the south at some earlier time. There is a zone there that is built up of both materials, that is, the ancient and recent alluviums, and it is very hard to say where the dividing line is located. Those wells do prove this: that the dip of the ancient alluvium must be very sharp in places. Wells have gone down five or six hundred feet and as yet there is no positive proof that they have penetrated the ancient alluvium. And confirming that, you go south of the Red Hills right near the winery there is a shaft that was sunk nearly 200 feet and didn't penetrate the Red Hill formation, and yet the Red Hill formation is only a short distance to the north of it. It shows that the fall is a very sharp one.

Q That shaft near the winery, as I remember, runs all the way in the gravel fill of the channel.

A It is in the recent alluviums as distinguished from the Red Hill or ancient alluviums.

Q That is, that shaft was just in gravel and boulders and sand the same as the ordinary wash material of the Alameda Creek all?

A It is the same as all the material that you find surrounding the Red Hills when you get away from the Red Hills. It represents the recent period and represents material that has been washed over the hill from the mountains north.

Q And you find that same material at the point where you

ran down the 16th Street wells?

A You find the same character of material in the main in the 16th Street wells, but intervening between you have the Red Hill formation.

Q Now we have 600 feet or 700 feet here of what you call the recent alluvium,-- 700 feet that in the main is composed of gravel and boulders and sand and the ordinary wash material of the flood channel,-- coming down to the 16th street wells, at least, and we don't know how much further south. But it goes down that far. Isn't it obvoius that that material in which those wells were bored was laid down in a free flow of water?

A At times that was undoubtedly true. It was undoubtedly true that the material, the gravels and the coarser rocks were rolledn in by a considerable current or velocity. It would require a considerable current to transport the heavier material, but it may have been the building up process and the rolling over of material even in a pond of water. We can get the same thing in a canyon where you dam up a canyon and build up a reservoir. The detrital matter, large boulders and the coarsest materials that you find in the canyon beds will roll in till they fill it up. And that process may have obtained and probably did obtain if there was a pond or lake condition above the Red Hill. So in that way you would get material delivered throughout the mass that would be coarse; even though it was finally deposited in still water it would be carried up near the point where it was deposited, by a running stream.

Q And is there any evidence at all that the material in

which the 16th Street wells were bored was laid down in any different manner than the material east or west or north or south?

A I think the same physical laws that control the transportation of material and the deposit of silts obtained. There may have been and probably were various modifications depending upon seasonal conditions and rainfall and climatic conditions at the time. We know that during certain periods the rainfall was necessarily very excessive, very much more than anything we can comprehend to-day. For instance, take the sub-glacial period, the period immediately following the glaciers, when there must have been a humidity that was something enormous on this coast. So we have had varying conditions. But I think the same physical laws obtained. And my own judgment is that there was never any large ponding of water in that basin. I believe the water had an outlet somewhere west of the Red Hill. Whether within a mile or two miles or four or five miles, I don't know. But I believe the tendency of the water during the early history of the recent fill was to work to the west.

Q If there was not an outlet somewhere there would be somewhere a considerable large deposit of finer silt, would there not?

A Yes; if we had a lake condition you would be bound to have the sediment settling in that part of the basin that was a lake, if any existed, for any extended period of time.

Q And so far we haven't any borings or any evidence of any kind which would manifest the existence of any such deposit of finer silt?

A. I don't think we have sufficient data to determine that question accurately. Our well borings show at points material which the well borers classify as clay, and an examination of it will always show that it is part clay and finer silts. Now to determine whether there was a lake condition it would necessitate a large number of borings, laid out possibly in a checker board style over that basin, to determine the extent and the exact depth of those strata of clay, to ascertain whether they were local lozenges or co-extensive with the basin. Now if a number of borings extending over two or three square miles there demonstrated that some point there was that silt at the same elevation, there would be reasonable proof that on such elevation there was a lake condition. My own judgment is, judging from the ~~xxxxxx~~ way the water has been extracted and the conditions that have developed by the extraction of water there, that there was no large or extensive lake conditions there at any time or for any great length of time.

Q. Now as to the grade on which those clayey deposits were laid down, how would that conform, generally speaking, to the present grade? That is, would the slope be generally the same as the slope on the surface of the ground?

A. In general terms it would. That is, it would be at right angles or approximately so to the axis of the mountain range. Of course there would be local causes which would deflect some of those ~~xxxxxx~~ transporting channels eastwardly and westerly. They would shift back and forth. They would not remain in one place.

Q. In the absence of borings or excavations or some special

evidence, the main guide you have as to what was the slope of the valley at the lower levels is the slope that it has on the surface to-day?

A No; I think not. I would regard the main factor in determining the gradient at the time the material was laid down would depend in a large measure upon the diameter of the material that you find at the different distances from the mountains. That is, the lighter the gradient the finer the diameter of the material would be. When you get back a number of miles from the foot of the mountains.

Q If you find three or four or five miles from the foot of the mountains that the material was quite fine, you could reasonably infer from that that the gradients were considerably lighter at the time that material was transported, and I think that is the accepted theory of geologists of the building up of these basins. The older alluviums are built up when these mountains on the north had not completed their rise. They were still in their ~~transportation~~ period from low mountains to high.

Q You have spoken about there ~~probably~~ having been a probable outlet toward the west. Why to the west more than to the east?

A Well, the formation immediately to the east of the line of the Cucamonga Canyon as shown by an examination of defendants' exhibit P indicates that there must have been some extension of the Red Hill formation northerly from the main axis of the fold. On exhibit P the mass of material which is in the area colored red, where it projects north above base Line, indicates that some such a condition obtained,

and while it has some considerable extent north of Base Line. The wells that have been put down, the Johnson well, Hermosa well and the Sunset well indicate that it has some considerable extent north of Base Line. This fact results in our knowing that there is a dike or resisting material to the east of the Cucamonga channel, and the very fact of the existence of that dike on the east side would have a tendency to throw the waters to the west. That is my reason for believing that the drainage was to the west until such a time as the basin was filled up and the waters overtopped the red hills where the present flood channel of Cucamonga Canyon exists.

Q In the map to which you have just referred, defendant's exhibit F, I notice that the red alluvium as marked on that map stands a considerable distance north and east beyond any well shown on the map. Upon what basis or what information do you extend that boundary north and east of those wells?

A On this supposition and fact. The wells which I have just named are within that area. They have been testified to as being artesian at the time they were sunk, thus demonstrating that they were in the ancient alluvium. The surface indications corroborate that. And the line as plotted on that map was extended northerly and easterly of all those wells, and I expressly stated when I put the map in evidence that I didn't know the limits, and that that did not represent, in my judgment, the location or terminus or margin of the ancient alluvium formation at those points, but that there were places where it might extend beyond the wells which are included therein and which I have described.

971 Q And you understand the old alluvium to be a closer forma-
2 tion to be a closer formation than the recent alluvium?
3 A It is more thoroughly decomposed and has a larger percent-
4 age of finer silts and closer materials and offers a greater
5 resistance to the movement of water.
6 Q Now the water which supplies the Hermosa well and the John-
7 son well comes from some northerly source, does it not?
8 A Yes; northerly or northeasterly or northwesterly. The
9 waters have not been identified, as far as I know.
10 Q True; and when I speak of northerly I mean anywhere from
11 northeast to northwest.
12 A It is supplied by thedrainage from the mountains lying
13 to the north.
14 Q And you have extended this red alluvium quite a distance
15 to the north because you understood those wells to be artesian
16 in character?
17 A Because so far as the northwest corner of that plotting
18 of the alluvium on this map is concerned, I extend it suf-
19 ficiently north to include the Upland well which is known as
20 well no. 33 on that exhibit and referred to as the Scurwing
21 well.
22 Q I believe that well is not marked on this map.
23 A It is well no. 33,-- the old Upland Water Company well
24 which Mr. Dillman testified to. It is marked here as well
25 no. 33. It is somewhat incorrectly located on this map; it
26 should have been closer to Nineteenth Street. It should have
27 been a quarter of an inch on the map north of where it is mark-
28 ed, but it shows the approximate general location. It is very
29 close to Nineteenth Street.

Q Isn't it a fact that so far as the artesian character of a well is concerned that the artesian character depends on some resistance to the flow below the well instead of resistance above? There isn't any amount of resistance that you could put between the wells and the mountains that would make them artesian?

A There might be. The flow of water must be under control by some formation which limits it to some specific way through which the water is moving.

Q But if the water is moving from the mountains southerly and a well is sunk and the water backs up in that well, which accounts for its artesian condition, is it not a fact that that backing up of the water in the well is because of some obstruction further south and not because of an obstruction to the north?

A Water won't back up in open formation so as to raise when you tap into it. It must be in some stratum of material which controls that water so that it cannot escape laterally. You take water in a flume, it won't back up and run over the flume. In other words, if you stick a pipe down in the flume the water in the pipe would stand at the same level as in the flume. It will not raise up in the pipe. But if you have a pipe line and have water running through it, and you tap into that pipe, if it has a hydraulic head you get water in your pipe. Now in well 33, if you have an open material there, the fact that water is retarded below won't make artesian water. It depends on where the water stands. It is a matter of hydrostatics or hydraulics, if the water has no motion to it.

Q. Now if the water is flowing through an underground channel or coarse stratum, and there is any impervious or partially impervious stratum above it so that it is not all confined, even then it will not rise as artesian water, will it, unless there is a still greater obstruction below?

A. Well, that depends on whether it is confined or not,-- whether it moves in just the velocity due to the slope, or whether it is confined and cannot spread out laterally, and is moving with a velocity not only due to the head-- You must have the water confined to get artesian conditions. The fact that you have a stratum above or below that is impervious don't necessarily make it artesian water. It must be confined on all sides. There must be a lateral control of the movement of the stream.

Q. And when you speak of those wells as being artesian, you don't mean that they were flowing?

A. No; I mean that when the water is tapped into or reached by boring a well the water might rise a number of feet, showing that the stream perforated by the bore of the well was an inclosed formation, one in which the water was moving laterally, and one in which the water was under pressure sufficient so that when the controlling material around the water itself or around the stream was penetrated the water might rise to the head or to the level which the supply gave it, no matter how distant that supply was, whether it might be a mile or ten miles away.

Q. And you don't know, do you, as to how far northerly that confined condition existed, or for how short a distance?

A. No. We can reason in a general way. We know there is

quite a wide zone near the foothills where artesian conditions do not exist, where there is a mass of material receiving the rainfall from the mountains, and that holds up the supply of water, and the water percolates down through it and fills the voids in the ancient alluvium, and if there is any surplus it finds its way southerly by percolation and fills the gravels known as the Red Hill basin or reservoir. It would take a series of borings and investigations within that zone of the mile or mile and a half parallel with the foot of the mountains or foot hills to determine where the conditions were artesian or where they were simply non-artesian.

Q The present slope at the surface, taken from well no. 1 of the 16th Street wells, and taking an east and west line, the downward slope is to the east, is it not?

A If you follow along base line that is true for a piece, and then you get a raise. It is irregular. If you start that on a profile you will get a saw-tooth appearance. You will have high points and low points.

Q But taking the surface generally, isn't it a fact that going from east to west that the grade falls towards the east?

A From some point near those wells and in the Cucamonga detris cone on a true east and west line there is along the base line a grade to the east--

Mr. Britt: The question was whether it was along the line of the wells.

A --And the same would be substantially correct along the line of 16th Street wells which are some six or seven or eight hundred feet north of Base Line.

Q Does this diagram show anywhere what you might call a

divide between the waters flowing westerly and the waters flowing easterly on the present surface of the ground?

A. It shows a number of those divides between the different water sheds and tributary watersheds. Which ones do you refer to?

Q. Take this line drawn here-- a heavy line extending from just west of the 16th Street walls northerly, along the westward boundary of what is marked as the red alluvium, and extending on up to the mountain. That is the division line between what two basins?

A. The line which you have just described on defendants' exhibit F is the watershed line between the Cucamonga drainage area from 16th Street north to its summit in the mountains, and the Deer Canyon drainage area north from 16th Street to its summit in the mountains.

Q. That line represents the approximate location of a point from which there is a tendency for the waters on either side to flow from the line (not necessarily at right angles) but it represents the water shed between those two drainage areas.

Q. On that line easterly the general tendency is to lower levels?

A. The general slope is a little east of south. But on an east and west line from that line, beginning at Base Line and working north,-- any line drawn directly east from that at many points shows a slope to the east.

Q. I am not talking about any particular point, but the general slope is downward as you go east on the general surface? You reach lower levels as you go east?

A. That is true at or near that line.

Q. I also notice on exhibit F that the red alluvium as outlined there is divided into what is called the West Side and East Side, the West Side having the lighter color, lighter than that which is marked as the East Side. Is that intended to note any real difference in the formation, or simply as a convenient way of designating what we ordinarily refer to as the east and west side of the Red Hill?

A. Your latter surmise is the correct one. It was put in not to show a change in the character of the formation, but to show the areas which we refer to as the east and west side in discussing the east and west side waters. It is a matter of convenient reference only.

Q. Looking again on this diagram or map, we see that the 16th Street wells, comparatively speaking, are close to the Red Hill as compared to the distance from the foot of the mountains.

A. That is true.

Q. About how far are they from the Red Hill as it shows on the surface today?

A. At varying distances. At well no. 3 of the 16th Street wells, -- the surface indications are such that my guess is that the well would be somewhere from three to five hundred feet north of the older red clays as they show on the surface. On the other hand, you go to well no. 1, the westerly of the 16th Street wells, and I presume there is no red material on the surface within half or possibly two-thirds of a mile.

Q. How about well no. 3? A. That would be in between the two that I have described, and I presume there is nothing within

a quarter of a mile to a half a mile on the surface.

Q While from the mountains-- the distance from those wells northerly to the mountains is from three to four miles?

A Yes; about those figures.

Q Now if the water coming down from the mountains on the north flowed down to where these wells were located, and the flow there was absolutely obstructed by this red hill formation, how do you get the vast deposits of gravel at the point where those wells are sunk?

A That material was washed in there as the basin filled up, as it were. As the basin filled up it washed in there from the north and probably that old formation immediately south was covered over at some time or other with recent materials. At the Stowell well it must be at varying distances from the surface. There were some figures called to my attention wherein the recent formation must be 60 or 50 or 70 feet over some parts of the tract right near the Stowell wells. Mr. Stowell has given me such information as would lead me to believe that it is that depth, and I know that westerly from there, the Sourwine dry shaft, demonstrates that the recent material had 180 feet at least of depth, so that materials up by the 16th Street wells would be simply in the line of travel of the detritus material and of the flood waters whenever the creek channel had swung over the debris cone,-- whenever it was in line with those points.

Q You don't believe the gravels in which the 16th Street wells were sunk were laid down in standing water?

A It would not be impossible, but I am inclined to think

it was transported by stream action. But as I pointed out to you, it is physically possible and not unreasonable that some parts of that fill may have been made in standing water -- water that at times was ponded. The same is true, I know, wherever we dam a canyon up, as I gave you my illustration this morning. If you build a dam in any of those canyons (Lytle Creek or the Santa Ana) and build a dam across the canyon so as to restrict the flood waters, it will only be a matter of years (depending on the height of the dam) before you fill that whole basin with boulders, gravel and sand and silts, and if you tunnel in that afterwards you will find it very hard to distinguish whether you are in gravel laid down under partially reservoired conditions or in actual stream conditions without any ponding.

Q. But we have a condition here where there is comparatively speaking a moderate grade, and even in your canyon illustration if the water was backed up in the canyon to any considerable distance, the water when it came down and backed up xx and made that pond or reservoir there, the finer silts would settle down near the dam and the coarsest material would be the farthest from the dam.

A. That would be true wherever the ponding of the water took place. There you would get your finest silts, which would be precipitated in still water.

Q. And as the upper portion of the canyon became filled, xxxxxxxx xxx raising the bottom to the xxxxxxxx level so that the water could flow on the surface there, then it would carry the coarser material over and further down?

A. It would be the same proposition. That is the action at

the mouths of rivers at the ocean or at our lakes. But in this case we have torrential streams and various conditions of run-off; we wouldn't have a preponderance of fine silts but a preponderance of coarser material.

Q But there isn't anything in the excavation of the 16th Street wells to show any considerable deposit of fine materials?

A The logs of all those wells show that they run into the fine material; but of course, it was not a homogeneous material.

Q I call your attention to defendants' exhibit 3 as illustrating the material through which wells 1, 2 and 3 were sunk, and I refer you to the testimony given before us to what these markings indicate. It shows, does it not, that for a great part of their course the wells were in open porous material?

A You are correct.

Q And where there is any closer material shown it is in comparatively narrow or shallow sections, and wells 1 and 3 and in porous material below anything that is shown in the way of close material?

A That is correct.

Q Now if you had a ponded condition down there and the material in which these wells were bored was laid down in that ponded condition, could there possibly be the kind of stratification that appears here in the borings of these wells?

A That would depend on the length of time of the ponding. There are a number of factors that come in there. The pond-

ing might be local. It might cover only a small area, and in that way you might get a lozenge built up over a small area, and you might penetrate with one of those wells through finer material that was laid down in practically still water. But taking the wells as a whole, my inference is that there was no extensive or extended ponding in that basin, so far as the depths have been penetrated by these wells.

Q. The inference is, as I understand it, that down to the depths of the wells the material has been deposited in the main in streams or running water?

A. That is my judgment from the facts I have been able to get control of.

The Court: Doesn't the intermingling of material in that basin rather suggest that however the dike was formed in the Red Hill that that deposit of silt-like material, clay and xxxx so on, found in the form of lozenges, was laid down afterwards and done at different periods of time by different streams?

A. That undoubtedly was the process during the up-building. I haven't a doubt but what there was more or less silting up of local and small basins. That could be accounted for in this way, if you will refer to Exhibit 1: Supposing this old formation had a considerable elevation in a general direction east and west, with 16th Street, cutting off the movements of waters from Cucamonga Canyon; and suppose we do have in the early geological times, during the deposition of the ancient alluviums, a considerable stream which brought material down, building up a mass of material from the south of the canyon toward the Red Hill, and shutting off the move-

ment of water westerly, on the east side of the Red Hill,--
and the east side the Red Hill does cut off the movement--
and resulted in a condition wherein the outlet must have been
west from some point of the Red Hill. Now, the building up
of the ~~xxx xxxx~~ of material in one big storm may have ponded
the water somewhere between the locus of that place and the
Red Hill on the east. It may have been a ponding which lasted
for some considerable period, and you naturally would have
sediments deposited which would have a considerable stratifi-
cation. But my own judgment is that all the formation we
have penetrated has not been put down by ponded water. But
I do believe, in the low portions of the bottom of the basin
in the zone which we would denominate as the neutral zone,
or the zone in which the transition would be traced
between the ancient alluvium and the recent alluvium, was
more or less ponded, by virtue of the fact that the uplift, ~~xx~~
even though much lower west of the Red Hill, was sufficiently
high to create a ponded condition.

Q. I note in listening to your testimony more particularly
this morning that your geological exposition of the conditions
in this immediate vicinity or neighborhood corresponds
very closely with the views expressed by Mr. Mendenhall in
the Water Supply Paper No. 219. I do not suppose for a moment
that Mr. Mendenhall bases his report on original research,
but rather upon local engineer's reports. I notice that he
credits you with water measurements etc. I am curious to
know whether you have adopted Mr. Mendenhall's views or
he has adopted yours, or whether it is a coincidence.

A. I think it is more of a coincidence. I have discussed it

very little with Mr. Mendenhall. He has been out there and tried to secure information from me.

Q But the phraseology is almost identical. He makes the classification of ancient and modern alluviums coincide with yours in point of time and so on.

A If you will recollect some of the testimony in the McPherson case which has been injected into this, I referred to the fact that there were or that there are two distinct classifications of material.

Q And referring to the McPherson case suggests another question: I notice he refers to the McPherson case in his history of the water turmoils of the vicinity, and even refers to the pending suit-- not by title, but to the fact that there is litigation pending,-- showing that the data has been compiled since the institution of this suit. And the query in my mind was whether to look to you as the original source of information or Mr. Mendenhall on this subject.

A My opinions of the two classifications are the same today as they were in the McPherson suit, only in that suit the issues were such that it was not necessary to delineate them as we have in this . And for that reason there was no extended discussion of where one began and the other left off. But in that suit the matter of the two formations was referred to emphatically by myself, and I know that Mr. Mendenhall has made a study of this whole southern ~~xxxxxxxx~~ basin.

Q Personally, do you mean?

A Yes; he has been on the ground and made a careful study

of the formation, and his conclusions are practically those of mine, and mine were formed many years before he had any knowledge of that country, and he has drawn in his report which you have mentioned,-- he has drawn the same distinctions that I drew in the McPherson case.

Q. I don't ask these questions as a reflection on either you or Mr. Mendenhall. It is always fortunate when doctors agree, but I wanted to know who was the consulting physician.

A. I know I have studied those conditions for many years, and I am on record for a long time, although I did not go into detail as I have in this. Nevertheless, Mr. Mendenhall has gone out and spent considerable time, and I presume that he had access to Mr. Wright and others as to information developed in that case, and possibly to well records and such geological facts as were presented by Mr. Stoneli, Mr. Wright and myself.

Q. There is only one respect in which you differ at all with Mr. Mendenhall, and that is in regard to these geological folds. He seems to tie the creation of the Red Hill to modern earthquakes which we know, like the San Francisco earthquake and the San Jacinto earthquake and the Inyo County earthquake of recent years; and while he does not say so expressly, that t a t is the theory on which he accounts for the formation of hills on the south side of the r range. I infer that he does believe so. And I notice that neither of you refers to the fact that in the Antelope Valley section there is a series of foot hills which mark a decided cleavage away from the main range, and are attributed by the Indians of early years of the last century to a

decided earthquake whereby the foothill range was cut away from the main range. I don't know that that throws any light on the south side of the range, but yet the main conditions must have been similar. There is a decided valley many miles between the main range and that foot hill range, and for many years it has been a fruitful source of work among miners in placer mines, and it was a source of speculation among the miners where the gold came from.

A I don't think there is any difference in regard to our position on that matter. Earthquakes are not the causes; they are the result of these changes and simply an accompaniment of what may be temporarily a quick movement.

Q I suppose an earthquake is only a manifestation of what is going on below.

A Yes. In case that change is a little more rapid than is usually the case, if those forces which are acting act quickly, there is a jar of the earth's surface and the result is what we term an earthquake. During this folding there may have been many occasions when the change was sudden, and undoubtedly that is true on this place. It may have happened many times in the rise of those hills.

Q As I understood you in the early portion of your testimony, you were strongly inclined to the theory that there was an uplift of this section of the Red Hills, not confined exclusively to the Red Hill section itself, but to the formation throughout Southern California westerly, and that the movement was universally coextensive. I mean that they were part of the xxxx formation thrown up.

Is it your opinion that the Red Hill was after the uplift

or during the uplift?

A I think the formation was prior to the uplift.

Q How do you account for all these lozenges that you find all through this reservoir?

A Above the Red Hill?

Q Yes.

A I account for those by the fact that in the formation of the detrital matter you necessarily get pockets which form settling basins in which the sediments of the floods are deposited, and those sediments ultimately make a lozenge formation when they are superimposed by a mass of material.

Q That red clay, I take it to be conceded, is practically impervious?

A Well, it resists the movement of waters to that extent that you cannot draw on it commercially.

Q I don't mean in the sense of its being a saturated medium, but the passage from above through there would scarcely be practicable unless there were openings through the wall.

A That is true; but under the same physical conditions the Red Hill material was laid down as debris cone and detrital matter from the mountains.

Q And doesn't that presuppose that it was done at various periods of time?

A Yes; and that it is interspersed with radial streams from the mountains, and in those channels the water circulates.

Q You don't mean that it was all put down at one time?

A No; by no means. It took a long geological period. Then

the material was laid down it was laid down from the foot hills to the Santa Ana River, filling up the bottom of the valley south. The close material in that Red Hill xxxxxxx mainly and especially noticeable in the large red mass of the hill dividing the east and west side streams, represent some point where there was undoubtedly during the process of its deposition a very close material, but even through the closest of that material you find channels of coarser material which has resisted the oxidation or decomposition elements, and in that material we find water, and it was through those channels that the waters supplying the cienegas and tunnel pass, and pass from the coarser materials found next to the mountains. In relation to Mr. Sandenhall, I will say that I know of no other geologist of considerable reputation who has made a close personaly study of this place, other than some of the engineers in this case, and I do know that he spent considerable time there, and that he had opportunities for drawing conclusions which most geologists do not have when they are examining a certain section of the country, and I feel complimented that he drew the same conclusions that I do.

Mr. Goodcell: (Resuming) So far as those small pools or pondings of water are concerned, in which there is from time to time deposits of finer material, you find those deposits and pondings all over this gravel basin more or less, do you not?

A Yes; that is true. You find them right on the surface. And, in a sense, where the washes are being built up to-day

you find the same conditions if you go out in times of flood. In fact, I had much opportunity in the last twenty years to study the physical conditions that have developed in these channels, and I am applying it, in so far as it is applicable, to my statements.

Q And whenever there is a flood stream more than the regular channel will carry without overflow, the natural tendency of this overflow is for more or less of the overflow to pass to the right or to the left and settle and form something of a pool, is it not?

A That is true to this extent: If the pool is there the water is restricted and a sediment deposited. But if the pool is not there the water will turn along some channel parallel or approximately so with the main channel from which it has sloughed.

Q Referring again to defendants' exhibit 8, the figures 1400, 1300, 1200, 1100 etc. on the left hand margin refer to elevations in feet above sea level, do they not?

A Yes, sir.

Q And the wells are drawn so as to show the character of the deposit in each at the corresponding levels?

A Yes, sir; in general terms. There is no attempt made to a very close, fine, detailed classification of material, and the terms pervious and impervious which are used in connection with that classification in the sense that pervious material is material which gives up water readily, and the impervious material does not give it up readily and is not profitable to pump from.

Q So "impervious" might include not only what might be

called xxxxxx xxx clays, but also that is called cemented or dry gravel.?

A Yes, sir; and the silts and other material which do not give up water readily to a pump draught.

Q Now taking the diagram of these wells as shown on this exhibit, they indicate that these various deposits in the different wells do not correspond in level.

A That is true. There is an emphatic presentation of fact there showing an irregular rather than a regular stratification.

Q And if the material had been laid down there in any general ponding there would have been much more correspondence as to level of those deposits?

A Yes; within the zone penetrated by those wells.

Q. Now, Mr Trask, we are confronted with this condition: that here at these 16th street wells, practically close down to the Red Hill formation, we have six or seven hundred feet of material that was laid down, generally speaking, in running water - water that was running with sufficient force to carry down gravel and boulders: Now if the flow of the water from the north to the south was obstructed by this Red Hill formation below, how do we get that deposit of gravel and so forth, in which those wells were sunk?

A. When it was obstructed the water took the line of least resistance, and in that case probably moved westerly or southwesterly; that would simply indicate a bend in the channel, or something of that kind.

Q. Have you had any opportunity of observing as to the size of the boulders and gravel in the bottoms of these wells, or have you any records or data on which to form any idea as to that?

A. Only in a general way; the well borers have reported that they have struck large boulders which they have gone right through.

Q. Does not the laying down of large boulders in detrital matter presuppose considerable force in the stream at some time?

A. Well, yes, and yet the large boulders are not boulders that are always moved along by the water.

The Court, Q. They must have been moved at some time to become boulders, to have that rounded condition.

A. Certainly, they have been transported, but the transportation in the canyons themselves would break off the cor-

nors; you take the large boulders in the San Antonio Canyon that were observed the other day upon the occasion of the visit of the Court to that section; I called attention to a large boulder in the canyon, which I had noticed make two successive turns, and in doing so probably changes its resting place 40 feet; at least I guessed that to be the distance at the time; the method was not the force of the water turning the boulder over, but a stream channel which undercut the boulder and caused it to turn over.

Could you have that stream channel undercutting it unless there was good deal of a current?

It takes a current to undercut, but the under-cutting of a bank may be by a small stream of sufficient force; for instance a small stream coming out of a small nozzle with sufficient force will undermine a bank; the process is that the finer material is gradually cut away, and the large material will roll down the incline.

You would scarcely expect the large boulder you called attention to to be rolled over and over, unless there was sufficient water to push the rock over, or undermine it it sufficiently so that it would move forward by the force of gravitation?

I would expect the large boulders to be rolled by the latter process, in the readjustment of levels, so far as I have been able to observe these large floods; I have noticed boulders two or three feet in diameter being rolled along in the channels of the canyons, during torrential floods, with a fearful roar.

Coming back to Mr Goodcell's question again,- would not

the presence of large boulders at considerable depth in that mass presupose considerable water at some time; conditions may have changed, but it must have been there at some time to lay down that material in all probability?

A. I think that is true; I think we have had floods since I have been in California that would be sufficient to move any boulders that I have seen on the surface, and move them down there; and that could be done with the water running down to the Red Hill, and the velocity being reduced at the contact with the Red Hill; the velocity would have depended upon the slope and the volume, and it would have continued with that velocity down the flood channel until it came against some medium resisting it, either a flatter grade, or a total obstruction; in this case I take it the total obstruction theory obtained, and that the waters worked at a less gradient westerly, through and over some low point in the Red Hills.

Q. If I understand you, in your opinion, the larger boulders are more likely to be carried along the line of greatest velocity in the moving water.

A. Yes, sir; for two reasons; not only the mass of water has the highest velocity, but the destructive effect in the way of undermining, as I have before explained, would be greater in the larger volume, and in the more excessive flood.

Q. That is by reason of the velocity isn't it, so there is no question about that opinion?

A. Yes. I have no doubt that those boulders that are brought in contact with the Red Hill, immediately south of the 16th street walls, and at the 16th street walls, were

brought out by the floods from the mountains to the north, brought out by action of water, even to the delivering of thearight against the Red Hill formation. In illustration of that if you will allow me, some of you may have noticed, when we warnon the trip the other day, at the division dam in the San Antonio Canyon, the whole basin was filled up, and the water was sliding over that; in the recent floods this winter, quite a good sized settling basin was filled up in a few minutes after the flood came on, and those materials were brought right up in contact with the dam, although at the time the basin was filled up there was only a small notch through which the material could pass.

Q Is there any cementing material in the San Antonio Canyon?

A There are some lime deposits in parts of that canyon, and during storms that have existed in those particular areas, the flood waterhave brought out some of that, but not to any great extent.

Q Is there any in the Cucamonga Canyon?

A There is also some there; that is true in all canyons in this section.

Q The amount of that cementing material varies considerable in the different streams?

A Yes, sir; in Mill Creek there are some fomations, that furnish a great ~~xxxx~~ of that class of material.

Q How about Lytle Creek?

A Yes, sir; there is some there; I dont know of any streams in this section, but what have more or less of this material; I think it is only a question of the extent of it.

Q I think what Mr Goodcell was leading up to if I understood him correctly, and that was what prompted my question that if the water was flowing into the reservoir and there was no escape below would there be a likelihood of the boulders being deposited against the wall of that reservoir? Wouldn't the current have abated to obviate that?

A I think not; the current would continue up to the point of contact, the same as it did with my obstruction in the San Antonio Canyon; the last rial would move up until it came in contact with the obstruction, although the waters might have moved in a somewhat lateral direction from that in which they were flowing when they brought the materials down.

Q If the current came with considerable force against a barrier and were turned aside, if there was any escape laterally, I suppose the current would take the lateral course and the boulders would follow that course?

A The boulders would be deposited; and if the current turned laterally, it would be reduced in velocity, and the boulders and gravels would be deposited at the angle, where the turn was made, by virtue of the fact that the velocity of the water would be reduced at that point.

Mr Goodcell, Q For those boulders to be carried down to that point at all, there must have been a free flow of water from above, and the free discharge of the water in some direction from that point, below?

A That is true.

Q That is six or seven hundred feet below the present surface; then six or seven hundred feet below the present surface, theremust have been at that time anyhow, a free

discharge of that water still furtherforward, either southerly, or as you say, westerly, passing around thend of the Red Hill formation?

A Yes, but that low point at that low depth may have been two or three miles further west; it was not necessary that it should be immediately west.

Q Well, it is necessary that at some point there was a sufficiently low depression there for the water to flow out freely from where those boulders were, on its way still further south?

A There must have been an outlet for the waters at whatever levels obtained during the time it was building; there must have been an outlet some point west, where they could drain out; otherwise there would have been a lake condition.

Q Then we would not have had the boulders there?

A Then we would have found in our borings, within the limits of our wells, a similarity of sediments sediments at the same elevations in those varying wells.

Q Suppose that instead of turning west, when this current of water brought these boulders down to where these 16th street wells are, suppose that instead of ~~erreting~~ turning west, there had been an opening to the south through that canyon or depression where now flows the Chuckawalla Creek to the east of the Red Hill, or what we call the main Red Hill, if that depression had then been sufficiently low, wouldn't that have afforded an escape for those waters?

A If the depression had been there, that would have been the lowest point for the waters to escape; under the laws of hydraulics the waters would have taken that channel as an

easement and escaped there, yes, sir.

Q Is there any evidence that you know of, or any evidence introduced in the case, borings or anything else to show that that depression between what we may call the East and the West Red Hill, was not sufficiently low to carry off that water?

A Yes, sir; there is positive evidence that it was not; the Red Hill formation there, and the narrowness of the channel, and the appearance of the cienegas, and the continued flow of the cienegas there during the time man has known and recorded the flow, are positive proof, that that point was a high point, and not an overflow channel until in recent times.

Q If that was a high point, how does the water ever get up there in thosecienegas?

A Water reaches the cienegas through the material in the Red Hill and not over it; and I mean by through it that it is passing through channels in the old formation, and not through it in any direction and every direction; I mean that the water reaching the cienegas and springs was passing through channels which are controlled, so that water is retained and made artesian water.

The Court, Q In other words, the dam leaks?

A That the dam has channels running through it; it is a mass of material folded, which, having channels in it, the channels are folded the same time the mass of material is folded.

Here theCourt takes a recess until 1:30 o'clock p.m.

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Afternoon Session - 1:30 p.m.

Cross Examination of F. E. TRASK, resumed.

Witness: Judge Oster asked for the lowest point reached by a well this morning, and I have been to my records, and I find that well number 9 on Defendant's Exhibits D and E, or well number 14, on Plaintiffs' Exhibit number 1, has penetrated to a point that has an elevation of 695 feet above mean sea-level. And the well I had in mind as the deeper of the wells in and near the Madie tunnel is well marked number F on Defendant's Exhibit E, and it is in the 90- acre tract on the lands of the Cucamonga Water Company, in an angle of the Madie tunnel; and that penetrates to a point which has a sea-elevation of 705 feet above mean sea-level.

The Court, Q That well you first mentioned as being nearest to sea level that is on the west side?

A Yes, sir; both areon the west side, and in the Madie tunnel development.

Q Do you know where the pipes of those wells are cut?

A All I know is what has been told me, that they were cut into all the coarse strata which was penetrated; I would naturally presume that to be correct.

Mr Goodcell, Q On Defendants' Exhibit F on which the red alluvium is outlined, I believe there is nothing indicating the presence of the storm channel of the Cucamonga Creek across that formation: could you mark that approximately on this map?

A Only approximately; the surface indications are not very pronounced there, and the topographer who did the field

work upon which this map is based, evidently did not recognize that wash there.

Q You have that wash marked on one of the other maps have you not? I refer to the storm channel that runs east of what we call the Red Hill.

A Well, I see that my answer was only partially correct; there are some markings which have been obscured by the coloring of red which has been put over this map, which indicate that the topographer did designate the approximate location; and I will with my lead pencil mark in a general way the location of that wash.

The Court: I understand, Mr Trask, it is only an approximation, and you need not be so particularly accurate about it.

A In leadpencil I have marked here, in section 4, and down to the northeast corner of section 9, the approximate location of that channel.

Mr Goodcell, Q That channel as indicated here passes between wells 6 and 7, and extends east of south, and across the Red Hill formation?

A Well, that is true as regards this map; but is not true as regards the condition; well 6 should be in the east side of this wash; the point where the well is located is in the east side of the wash; wells 7 and 8 should be bunched closer together than shown on the map.

Q This channel passes just west of well number 7?

A Just west of well number 6 which is the Rubio well.

Q With reference to that channel, as marked across the Red Hill formation on this map, where was the old shaft which was sunk down near the winery?

A The old shaft is south of the County road, and it is eastoff the flood channel, I should say three or four hundred feet, possibly five hundred feet.

The Court, Q You are not referring to the Jordan shaft?

A No; I am referring to the shaft near the winery.

Mr Goodcell, Q A dry shaft?

A A dry shaft.

Q Independent of deductions from any theory as to artesian conditions and so forth, is there anything in the way of excavation to point out or to indicate the depth of the debris fill, gravel wash, and so forth, under that channel crossing the Red Hill?

A Why, I don't know of anything - of any work that has been done in the channel, with the exception of some very light trenches - some very shallow trenching that has been done in the channel near the springs.

Q This Red Hill formation as marked on the map, shows practically a right angle, taking in the 10th street wells, those wells being included in that angle as outside of the Red Hill formation; have you any information or knowledge, which points to the fact of any such definite outline, in that locality?

A No, sir; that angle is as much an accident as anything; that is, those lines separating the two formations were drawn so as to bring the wells known as the Bunkell wells, within the gravel bed; there was no intention of making a right angle; it was simply convenient to draw it that way, and that line does not intentionally mark the exact location of the contact by any means; as I have explained here-

tofore, it is put there to show a separation somewheres nearthe point represented.

The Court, Q. You answered somewhat a similar question some days ago, and I was not sure that I understood then, or understand now, as to why you have that jog in the portion marked red. Do you mean that you did it in that way, so as not to obscure the location of those wells?

A. I did it because the evidence obtained from the boring of the wells points to their being in the recent gravels; in other words the Haskell wells were not artesian wells.

Q. Do you mean to say that there is anything on the ground to indicate that that red alluvium which you have marked on there, extends right up to those lines, as it is marked on the map?

A. No; I have tried to express, and I think it is in the record, my position: as regards the exact limits they are indefinite and indeterminate; but at some point east of the Haskell well, and west of the Lone Star well, in other words, between the two wells, there is a definite contact, because the Lone Star wells are artesian and the Haskell wells are not.

Q. Is it your opinion that the red alluvium extends up to the south line of that square, and also to the east line of the square, as indicated on the diagram?

A. Apparently on the surface it does; it may even break over further than I have shown it; there is a zone where it is impossible to determine which formation is underlying it; possibly both, in the more recent few hundred feet; when you get deeper you find the other, the older.

Q You do not want us to understand that that diagram, and the particular outlining of the red, indicates ~~[illegible]~~ your opinion exactly as to where that is located?

A No, sir; I have put in a statement qualifying the diagram to the extent that the exterioir boundaries of the old alluvium formation are only approximately indicated by it; in some points it is almost impossible to determine; the conditions would require a number of test wells to be put down to determine exactly where the contact is; from all the facts I have, that represents approximately the contact.

Mr Goodcell, Q Now you spoke this morning about such a condition, or possible condition at least, as the water having flowed down to the south from the north, down to the point where the 16th street wells are located, and there making a sharp angle to the west, and flowing off, and finding an outlet at some indefinite point west of that; and if I remember right, your reason for not admitting or supposing that the water found its way southerly along somewhere near where the present stem channel of the creek crosses the red hill formation, was based solely on the fact of artesian conditions obtaining in the one formation, and not in the other?

A No; not solely; that was one of the factors; the other is that the hills remained intact there; there was only a very slight erosion where that present flood channel is, and there is no evidence of a long-continued discharge of detrital matter and flood waters through there; and the further fact that the Red Hills further west are very much lower;

water could not have poured over at that point, as long as there was an easement through which the waters could pass, further west.

Q. I am trying to get back to the time when the surface flow where the 16th street wells are now was 600 or 700 feet lower than the present surface; now, if at that time there was an opening extending southerly, a kind of a canyon or depression or ravine there, through which the water could flow, that would admit of the free flow of water that must have been there to bring down those gravels and boulders, just as well as having it further off to the west would it not?

A. Certainly, Judge Goodcell; if there had been an opening there lower than at some other point, either to the right or left, there would have been the overflow.

Q. Well, there is a depression there now ofcourse; we see that.

A. There is a surface depression in the hill there at the present time.

Q. So far as present surface indications go, the channel across the Red Hill formation is continuous with the channel above, and of the same general character, is it not, so far as present surface indications go?

A. Well, it is in part, but as you get down below the Base Line, you find even the surface gravels intermixed with the old alluvium gravels and rocks; you find the two closely intermixed there; I have not examined them closely and I do not know which would predominate; but if you go through there and examine them closely, you will see that the con-

dition is quite materially changed when you get to some point about at the Base Line.

Q. There has been more or less sliding in and filling in from the sides along down there?

A. Yes; any erosion there would tend to undermine the adjacent banks, but that has not taken place to any great extent, or over any great period of time, as the channel is very restricted; the evidences all point to its not having been used for any great period of time as an overflow.

Q. If, however, there had been an opening there, a narrow canyon extending through there, down to a depth of five or six or seven hundred feet, and the water had flowed through there - not always ofcourse - there would be more or less changes of direction of the channel,- but with the water flowing down through that channel at that depth beneath, then in the course of time that channel would have filled up to its present level, anyhow, would it not?

A. Why, I hardly think so. You compare the slope through that cut with the slope on the west side of the hills, and you find the slope on the west side is much flatter where the waters have in times past flowed; you take it over the Eadie tunnel,- flood waters have passed right over that, right through that area where the 90-acre tract is located; there the slope seems to be quite even and quite general with the valley below and west; it seems to be continuous; but if you follow the grade down through the red hills from 16th street, you will find it drops off more rapidly. It presents the appearance of a dam, something left up there higher than the surrounding plains, in which those hills are

projected up and through; there is a sharper gradient there.

Q If there had been an opening there, and water had flowed through, and it had filled up with detritus, the same as other channels have filled up, to corresponding grades or something approximate, is it not a fact that even then springs would naturally or probably arise at some point in the course of that channel fill, owing to the restriction of the water as it flowed down from the more extended channels above and became confined in this narrower channel, between the two portions of the Red Hill?

A Oh, there might be some conditions there by which there would be some water - but the tendency and the physical effect of passing flood waters through those hills, would have been to cut out a large gorge there, and the contrary is true. It is a very narrow restricted gorge, and the evidences all along that gorge point to different conditions than you put into your hypothetical question.

Q Now, as to the springs that actually do arise, or did arise - what are called the Cucamonga Springs - you attribute their rise to the waters flowing through the old alluvium: are those waters fed from the seepage from the Cucamonga Canyon?

A They may be.

Q How do you account for the water rising, up on those hills, up on the sides there, above the flood channel of the creek?

A That water reaches those points through some channels that are included in the mass of the Red Hills; it comes there by virtue of being fed at some higher level, towards the mountains.

Q And have you any knowledge or definite opinion as to how far up toward the mountains is the mouth of the channel which supplies those springs?

A No, only in a general way, it would be in some zone up near the foothills; the zone may be a mile, or a mile and a half, or half a mile wide; to determine that definitely it would be absolutely necessary to put down a series of wells, the same as you would do down lower to determine whether you werein the ancient alluvium or the recent; you would have to tap down there and discover the point where there seemed to be artesian water in contradistinction from the waters which were simply ponded or surface waters.

Q Isn't that artesian condition the result simply of the fact that water flowing on down through channels that are more or less obstructed all around, are obstructed still more at points below, which caused a backing up of the water at that point, so as to make it under pressure, so that when the material overlying the water, and confining it, is removed by tapping it with a well, that the pressure causes a rise in the well?

A Well, in part that is true; the water must pass through different materials and be at varying elevations with a pressure on it; that is the channel must be sufficiently impervious, or rather the lining of the channel must be sufficiently impervious so that it will restrict the movement of the water, except along the line of flow; but it don't mean that the water must be cut off at the lower end entirely, in order to back it up.

Q You cut off the - -

A But restricted; there must be a restriction in order to create the pressure.

Q So that if there were underground channels carrying water coming from the same general source up near the mountains, and some of those channels happened to pass into a closer formation where the flow is restricted, and others of these channels happened to pass along where there was no increase of restriction, the result would be that in one case you would find more or less artesian rise of the water and in the other case you would not?

A Well, I can conceive of a theoretical condition by which a pipe line laid down from the mountains would not create any rise of the water,- that it was running as gravity water through that line; in other words, if it had the greater easement the further you got away from the source of intake; but all of these channels have the reverse condition naturally; you take the channels through which the water is moving, and the coarser material is necessarily near the region of the material nearer the foot of the mountains; you go further down in the channel itself and you find the finer materials; and the flow in all of these channels would be more restricted the further you get away from the mountains; you would be apt to find more silts mixed in with your sands, and therefore there would be more resistance in the medium through which the water was passing. In that case you would expect to get artesian rises if you tapped into those strata.

Q So the question of whether the water is artesian or not artesian, does not really depend on the source from which

the water comes, but upon the restricted condition of the channel at the lower points to which the water reaches?

A Well, that is only one factor, Judge Goodcell; that is one of the factors controlling the conditions which make artesian water; it takes several factors; if any of them are lacking, you can't have artesian water; you may have part of the factors necessary, but you must have them all.

Q True. I don't say that the condition was exactly, but that the fact of artesian conditions does not depend upon the particular source from which the water comes, but upon the nature of the channel through which the water is flowing at the point where the well is bored?

A Well, you exclude one factor, and make prominent another in that, as a requirement for artesian water, and I can't agree with you.

Q Why not?

A Because artesian water must have a source, with a head in excess of the point where you tap into the water; that is one factor that it must necessarily have; and it must necessarily have, comparatively speaking, a closed channel and there must be some resistance in the lower part of that channel to restrict the flow of water; that resistance may be an elevation of the channel itself, as it would get in the folding of the Red Hills; the anticline of the Red Hills would be the rising of the channel, or the bending of it - raising it to an elevation; and that would put any pressure on that part of the channel that was in the syncline or in the basin above, or between its head and the point where it was folded. You would have that artesian

condition, if you had some method of stopping the channel, even though the channel itself had not been folded and there was no elevation, so as to make resistance partial or completely retard the velocity of the water.

Q Isn't that the same thing as answering my question in the affirmative, that the question of artesian conditions is a question not depending upon the source from which the water comes, but upon the condition of the channel at and below the point at which the well is bored?

A Well, I don't agree with you; I think it does depend on the source from which it comes; that is one of the factors, and that must be right; that source must be right; its conditions must be right, or you can't get artesian water, no matter what your channel is.

Q True. But those conditions depend on the nature of the channel, and the formation at and about where the well is bored, instead of the source from which the water comes.

A Well, that is true only in part; I can't subscribe to it only in part, Judge Gooucell; that is the difficulty between us.

Q Well, let us take an instance: Suppose up near the mouth of the Cucamonga Canyon, water is flowing there, and seeps, and divides there into two underground channels, one flowing more to the east, and the other more to the west, and they continued on down separate, and one of those channels comes to a point where it meets resistance to further onflow, while the other of those channels passes along down through porous material, and that there is no particular resistance: wouldn't there be artesian conditions

in the one, and not in the other?

A There might be, and yet they both have the conditions of head control, and you eliminated that in your other question; you have made your conditions right in this question - right in artesian conditions in both of them - and your first question as I understood it, eliminated the condition as to the head.

Q No, I had not spoken of the head; I had spoken of the source from which the water comes.

A Well, I speak of head in the sense of the source that the channel is drawing from.

Q Now, the water that rises naturally in the Cucamonga Springs ofcourse comes from the north somewhere?

A Yes, sir; I think I can agree with you in that regard.

Q And I understand you, in your opinion, it comes through some old deposits that lie at greater depth than the bottom of the 16th street wells?

A Yes, sir.

Q According to that we have water down there in that old alluvium at some unknown depth below the 16th street wells, and which must be say 500 feet lower than the point at which the water comes out at the Cucamonga Springs, so that in that short distance that water must rise, as I take it, at least 500 feet to flow out on the surface at the Cucamonga Springs? Is that correct?

A Well, that makes a good theoretical description.

Q The water then, when it flows out at the Cucamonga Springs, is practically under a 500 foot pressure or more?

A No, not at the point whereit is flowing out.

Q Not at that point,- but the water where it passes under the 16th street wells, or along that distance northerly, is under a pressure of 500 feet or more is it not?

A It may be; the pressure would be controlled by the difference in elevation between the elevation of the water at the point where it passes under the 16th street wells, and the point where it emerges; and your theoretical proposition making a depth of 500 feet there, that would be approximately correct; it probably would be more than that, because the velocity due to the current, or movement through the gravel, would be something additional, making it in excess of the difference in elevation between the two points which you have specified.

Q It must at least have a pressure that is measured by the difference in elevation between the level of the Cucamonga Springs, the point of outflow, and the depth to the water from which those springs come under the 16th street wells?

A Well, the depth to the point where the channel passes under the wells; that is correct; it would have to have that pressure at that point; the water at that point would be under a pressure in excess of the pressure resulting from the difference in levels of the points you describe.

Q Why does that water continue on down and flow out at the Cucamonga Springs raising up 500 feet more or less, to reach that place of outflow, instead of breaking through into the gravels penetrated by the 16th street wells?

A Because the superimposed load of gravel and water overlying there, of the 16th street wells, maintains a reac-

tional force, a resisting force, which confines the water in the channel. The load which consists of the water and gravel, overlying the strata, serves the same purpose as a tension in the pipe line would, if a pipe line was laid with that head of water in it; it exercises a restraining and a restricting influence.

Q. Then you think that water and gravel will act as a confining covering to water underneath?

A. They certainly do; if you have your load you have your pressure; it is simply a difference in pressures in all; if your water and gravels overlying are of sufficient weight to produce a pressure per square inch on the confining strata - confining material,- confining that channel, equivalent to the pressure of the water that is under its own head, based on its outlet, why then there would be no interchange of forces; there would be a balancing of forces.

Q. I guess perhaps I did not understand you: You do not mean that it is the weight of gravel and water pressing upon the underlying gravel that carry the waters rising in the Cucamonga Springs, but that lest in a weight of water and gravel pressing on some impervious layer that separates the two?

A. Well, I mean this: that there is a mass of material overlying your channel which you call your artesian channel- which we will call your artesian channel- through which the Springs water is passing, and that the pressure at and near that channel, over it and around it and under it, is sufficient so that it counteracts or balances the outward pressure of the water within your channel; there is a balancing of

forces there. I say that in a pipe line we accomplish that by using a ~~pipe line~~ medium to pass the water through, which has sufficient strength to resist the force exerted by the pressure of the water. In this case, instead of having a tensile medium there, we have a load, which serves the same purpose.

Q. No amount of gravel and water resting there would keep the water from rising to the general water plane at that point, unless there was some impervious layer beneath it covering that underlying water, would it?

A. Why, I think probably that is true in most cases; there might be channels through certain kinds of limestone or sandstone, where the surrounding material would not have that water load, that the weight of the material itself, and imperviousness of it, would be sufficient to restrain and hold within bounds the pressure of the water which is passing through the channel. Possibly I can state this a little plainer, Judge Woodcell: the actual pressure exerted on the walls of that channel, whatever they may be, would only be the difference of the column of water of the 500 feet, it would only be the difference between the weight of that column of water, as against the weight of the column of water which rested on top and over the channel; for instance if the column of water which was in the gravels overlying the channel was higher than 500 feet, say 50 feet higher, there would be a tendency for the outside waters to get into that channel at that point; on the contrary, if the overlying water pressure on that gravel was somewhat less, say 50 feet less, making it 450 feet, there would be

some tendency of the waters of that channel to get away or percolate from their confinement, laterally; but as a matter of fact and practically, the overlying load of water and gravel is sufficient to keep that water from removing out rapidly from the channel it is passing through, and there is really a neutralization of forces there.

Q What does that overlying burden of gravel and water really rest on?

A It rests on the underlying strata.

Q Of what?

A Of water and gravel.

Q So that you have one stratum of gravel and water resting on another stratum of gravel and water, and keeping the lower stratum of gravel and water down?

A The whole mass is saturated clear through to the igneous or metamorphic rocks, and partly into the rocks, as a saturated mass.

Q Although a saturated mass, you think the water from the deeper saturation does not have any mingling with the water in the higher saturation, although it is all in contact?

A Well, I believe there is no mingling in a commercial way; that is, there is a theoretical contact, but I mean there is no perceptible motion of water that could be commercially taken advantage of, under the conditions as they exist.

Q When those old channels were laid down, which you call old alluvium, that material was the same general character as the material that is being laid down, or in the recent alluvium, was it not?

A In general terms I believe that to be correct.

Q And the process of laying down and filling up has been continuous?

A In so far as I know, it was continued through the whole period of time.

Q Well, don't you know, as well as you know anything in geology and geological matters, that it has been continuous?

A Well, the presumption is that it has; and yet there may have been periods that there was very light rainfalls, for some reason or ~~xh~~ other; as a matter of fact, we don't know positively,- we speculate on it - we speculate on the tremendous rainfall precipitation that immediately followed the glacial age; we have no large evidence of it;no well demonstrated facts; but it is a reasonable presumption from such facts as we have.

Q Then that process of erosion and deposit of detritus from the mountains, so far as we know, has been going on continuously, from the time it began up to the present time?

A I believe that has been going on continuously, but very irregularly.

Q Referring to Defendant's Exhibit Q, and the geologic sections as illustrated on that exhibit,- you have for illustration on section B, a deposit to a certain extent, which you call, I understand, the old alluvium?

A Yes, sir.

Q And then on sections C and D, you have that deposit tilted by the fold, plus a later deposit of the modern alluvium?

A Yes; in C, we have the fold, and the ancient alluviums

shown as folded, with some recent alluvium deposit.

Q Now, at the time that fold occurred, and that old alluvium so tilted up, where the Red Hill is now, that old alluvium at that time was a modern alluvium wasn't it,- that is, it was a fresh deposit at that time?

A Well, whatever was on the surface ofcourse was recent; in those days it was recent.

Q And we have every reason to believe that it was of the same general character as that which came later?

A It was made up of the material, yes, that came down from the mountain formation; the supposition is that in the early part, the lower depths of it were made up of much finer material than now, by virtue of the probably much lower elevation of the mountain, and comparatively speaking, of the slight inequality existing, between the level of the valley and the level of the mountain at that time.

Q And that deposit continued without break or interruption, and a later deposit being laid over the early deposit just the same as it has been going on ever since, did it not?

A Yes, sir; that is going on today.

Q Then does this line of apparent demarcation between the old and the recent deposit really mean anything in this exhibit?

A It means this:it means that somewhere there is a zone which would have to be taken as the dividing line; to determine that with definiteness, it may be necessary to make excavations or borings to examine that formation clear through to the rocks in place; that line might be quite a wide line; it might cover a great many feet.

Q If the deposit was going on continuously, where is there a dividing line,- how can there be a dividing line?

A Well, there is a transition from the one formation to the other; as I have heretofore stated about the mixing on the surface at the present time, there is probably a neutral zone somewhere; the change of conditions,- the uplift there, will probably mark about the period of time when there will be some change of conditions of discharge from the mountains; flood conditions might be different so that the change would be very pronounced; that is a matter of speculation, however.

Q We have had those changes right along, every few years, and every few centuries , ever since?

A Well, some changes may be going on now for all I know. I think it is true that we are constantly having changes in the earth's crust, and that may have taken place here on this particular field of our investigation, within the past few centuries.

Q Just one more question: The water that comes out, or that did come out naturally from the Cucamonga Springs, came in a comparatively free and open channel did it not?

A Do you mean the point where it discharged?

Q Yes?

A Well, it came to the surface; it spilled out on the surface over quite an area, and ofcourse was discharged freely in air.

Q And in order for the water to come out with the volume that it naturally flowed there, must it not have come through comparatively open channels?

A. I don't know that that is necessary; that cienega where those large springs open out to the surface is large, has a large area; I have no knowledge of it, but there may be some point of those springs where there was an opening of that material, and a stratum through which the water was pouring may have had considerable extent at that point; the cienegas rather indicate that it did; the spreading out of water over 10 or 15 acres would mean a large stream; while it would mean more porous material than the material through which it had been passing, it would not mean the same as in the channels and in the debris cones; it is only a relative question of coarseness. The water pouring out there for a long time, so far as surface conditions are concerned, would have a tendency to wash away all silts and sands; that is true were the water emerges from the ground and wash some considerable distance into the material.

Q. Would it ever reach that place so as to flow out at all with anything like the volume that it had, unless it was coming in pretty free and open channels?

A. Well, I think the channels have been free and open in that they were discharging that volume of water; if they had been close and compact like places on the Red Hill, I would not expect to see water coming through in the volume that it has come, and is coming.

Q. There is one other little branch that I want to ask a few questions upon in reference to the old alluvium formation: the difference as I understand you, between what you call the old alluvium and the modern alluvium, is a differ-

ence in the stage or degree of disintegration and oxidization and decomposition?

A Those are some of the elements; yes, sir.

Q I suppose that if the gravel beds now lying on the surface, the fresh deposits, were left lying there, without being covered, that in time they also would oxidize and disintegrate and become old?

A I think that is correct; that the debris cones of the present day, the recent gravels, in future geological ages, will have gone through the transition period, and have become ancient silts, and covered over; I believe, however, that the present debris cones would supply a larger percentage of coarser boulders and gravels than you find in the older and ancient alluviums, because of the higher elevation of the mountains and the bringing of larger material further out into the valley in the recent period than was probably the case in the ancient.

Q And the process of oxidization and decomposing goes on most rapidly at the surface, where it is mostly freely exposed to the atmosphere?

A That is correct; the surface material gets more of the carbonic acids, and more of the humic acids, and more of the acetic acids, and more of the elements that aid in the decomposition, and those acids, some of them, pass down to the lower depths.

Q And in time a gravel bed exposed that way will disintegrate and decompose, until it finally becomes soil will it not?

A Yes, sir; if you give it sufficient time, soil is the

ultimate end of all material, if it is given an opportunity and time.

Q When the Red Hills were uplifted the alluvium of which they were then composed was a comparatively recent deposit, that is, recent, speaking as of that time, were they not?

Well, the surface was undoubtedly recent at that time, that is at that particular date when the movement began, the surface silts were the recent silts ofcourse

Q And that alluvium, being lifted up and raised some height above the surface, higher probably than it is today, has remained from that time to now, uncovered by later deposits,- that is, that portion of the Red Hills that are now above thesurface?

A Well, so far as we know, there is no positive proof of that, thereis more likelihood that the present surface o of the Red Hills was superimposed by considerable depths of alluvium which have been degraded and eroded and transported away.

Q That would be by the local rains?

A By the atmospheric conditions that were obtaining and working, and breaking down the mountains during the same period of time.

Q However much of it washed off in those days, the fact is so far as we know, that those hills, the portions that are now above the surface, have been above the surface for an indefinitely long time?

A That is the inference from the conditions; that is in the sense that they have been above the detrital matter and

material around; ofcourse the present level of the Red Hills, even at the top of the big Red Hill, has not been above the surface, and exposed to the atmosphere, any great length of time; I suppose the erosion there amounts to a few inches each century right from the top of that hill now, so that in that sense the present top of the hill was not the top a few centuries ago.

Q Well, the atmospheric conditions tending to the disintegration and the reduction of gravel and soil and so forth go on to a greater or less depth below the actual surface of the soil?

A Yes, sir.

Q And more or less to a depth of a number of feet?

A Yes, sir; they are accellerated at the surface, or near the surface, and the effects of the elements which enter into the decomposition of these materials are less and less as you get away from the sources of supply of those acids, that is from the surface.

Q So that it is probably the fact is it not, Mr Trask, that the present character of soil that we find on the Red Hills as compared with the more recent detritus that has been washed down around them, is due, not to the difference in character at the time of the uplift, but to thecharges that have taken place, at and near the surface, since that material was raised above the old surface?

A Well, it is due to that in part; I won't say wholly; because I believe these silts then laid down were broken up much more thoroughly as a whole, than the silts that are being laid down in the recent gravel beds.

Q Why?

A Because I think they were transported over much lighter gradients; the relative elevation of the plains upon which they were spread out as silts and the tops of the mountains was very much less than today; and the water also probably went through a longer period of decomposition while being transported than those which come out today; the higher the gradient the coarser the material which you bring out of the mountains; in that regard I think those older alluviums are in condition so as to more thoroughly decompose and do so more quickly than the alluviums that are being laiddown today, even though the alluviums laid down today might have the same age.

Q But we find in that old alluvium, as you call it, we still find boulders and gravel do we not?

A Wedo; and we find in all masses of detrital matter some character and forms of rock that have seemed to resist the elements. However, many of these large boulders which we meet with, although they look quite firm and look like what we term live rock, although they preserve their shape and form, they will go to pieces readily , and are really shown to be what we call dead rock; you probably noticed if you have been out in the washes, and have occasion to handle boulders, that you occasionally find one even in the recent washes, which if you hit with a hammer will go to pieces readily.

Q Have you ever experimented with the boulders in the Red Hill formation and ascertained that they go to pieces readily?

A Not largely; but I do find in working in different ma-

terialsthat they go to pieces readily when struck with the hammer and show oxidization along the fractures and planes of contact with other material.

I have no doubt that condition exists.

Q. But do you know from your own observation or experiment that that condition is true as to the boulders that are found in the Red Hill formation?

A. I don't remeberof ever using the hammeron any of those boulders overthere; but from my examination and knowledge of the conditions, I have no doubt it is true; in fact I am atisfied it is; it is elsewhere.

Q. But whether they are now hard or soft, they werebrought down there at some time by a flow of water from the mountains?

A. Then as now, there were times when those boulders were transported out a greater distance from the foot of the mountains, through those channels, where we find the coarser material and where we get the water when we tap down into that old alluvium.

Q. Then the fact that there is at and near the surface of the Red Hills a close formation, a soil formation, which may be attributed to the atmospheric and other changes that have taken place in the way of decomposition, is not any evidence that the same compactness or character extends indefinitely down in that old alluvium?

A. Well, I think it is in a measure, because that is - that formation we see there on the hills is comparatively a younger and more recent of the various strata that go to make up the old formation; the process of laying that down

required a large amount of time, and it oxidized more or less; if we go down into that we expect to find material equally decomposed; the material taken out of those deep wells bears out that hypothesis- that there are old and fine silts as you go deeper,- and I would expect to find the finest silts, and the most thoroughly decomposed matter down near the contact with the rock in place; that is where I would expect to find it

Q Takethat Stowell or '96 well, sometimes called, that was sunk in theold alluvium as I understand?

A Well, it was not on thesurface; on the surface there were a great many feet of drift that have come in over the old alluvium there; but the greater part of that well, all except the surface, may be 30 or 40 or 50 or 60 or 70 feet - but the balance of it was all through the old alluvium.

Q The evidence shows that in running the Y tunnel, that when they reached the end of the west prong or branch of that tunnel, that they ended in boulders: do you recollect that testimony.

A Well, I remember that drift, and I remember that Mr Stowell went into it quite considerable.

Q I would like to refer for a moment to page 599, volume 1; I refer to the testimony of Mr Lynch, beginning at line 19, page 599, in answer to a question referring to the Y tunnel he says:

"Q In driving that tunnel what sort of material was encountered?

"A First on the surface there was muck and decomposed

matter; afterwards gravel mixed with clay; stratas of gravel and stratas of clay.

"Q As you approached the west branch of the T what did you observe and what material?

"A We were in big boulders there, some of them; that is one reason we stopped; it was too difficult to work ahead, and we were getting plenty of water at the time.

"Q Of what sort of stone were they?

"A Granite.

"Q What was the appearanceof the boulders?

"Q They were round and plainly glacial boulders worn by water action.

"Q What did you notice as to the freedom with which the water came through the mass ofthe boulders?

"A It poured through in streams, big streams."

Calling your attention to that testimony, and assuming the fact to be as testified to by Mr Lynch, what would you say as to the formation in which that branch ended, as to whether it was old or new formation?

A I would say it was tapped into a very coarse channel of the old formation; I see nothing in his testimony to indicate otherwise; we know that in those older formations we get large boulders; they represent material that has at times been carried furtherfrom the mountains and they account forthe large and free flow of cienegas and wells and tunnels which tap into them; that would show that he tapped into a stratum which was supplying in a measure or at least partially supplying the Big Springs, from which well number 1 was pumping; I had forgotten that testimony.

Q And you think that that coarse formation, that comparatively open chan el extended on down from thatx point extended down 600 or 700 feet, under the 16th street wells, carryin water which came up at the Springs?

A I don't know whetherit went to the 16th street wells; the conditions indicate at that particular point that that channel worked off northeasterly toward the Lone Star tunnel; but I would expect the channel to take whatever dip was necessary by thefold of the Red Bill material and thesolo alluvium at the time of the uprise; that determines the dip there, and thetotal raise in those channels.

MR. CURTIS, Q You stated in answer to Mr Waters' question that you were in the employ of the defendant; you referred I presume to the San Antonio Water Company?

A Yes, sir.

Q Not the Sunset Water Company?

A That is correct.

Q You are not in its employ?

A I did not takeinto consideration the defendants that were called in later in the trial, when I gave my reply.

Q Well, I presumed so, Mr Trask. Now, on Defendants' Exhibit F, the elevation of the waterin the Sunset well, is shown as 1275 feet on May, 1904: Where did you get that measurement? Is it one of your own measurements?

A May 7, 1904, elevation of water well K, was 1290.9; that is my own measurement.

Mr Britt, Q Is well K the Sunset well?

A No, sir.

Mr Curtis, Q My question referred to Exhibit K, the Sunset well. You have the elevation of the Sunset well, May, 1904 as 1275 feet, on the right hand side of the exhibit.

A Well, in November 1904 I made some measurements there at the Sunset wells, and at that date I got the elevation of the water.

Q Well, you prepared, did you this Exhibit K?

A I must have another record made in May; those figures were taken from some of my measurements, but I seem to have omitted that from a tabulation I put in; that is what is bothering me.

Q I see it does not show the figures on the exhibit, but it indicates it somewhere between 1270 and 1275. Well, you need not spend any longer time looking for that.

A Well, I took that measurement, but it is run in with some other measurements, but I didn't get it in the tabulation.

Q Do you know whether the well was pumping at that time or not?

A Well, I know it was pumping sometime in the latter part of May; but my recollection is that it was not pumping at the time I measured the water there first.

Q But you have no recollection of measuring it in May?

A Well, I know that the measurements that I have platted on that profile were taken from my own books, from my note books; and I know that I was there in the early part of 1904; that is after April 11; April 11 was my first trip out in that country; and I know that following April 11 I was out there once a week, and I know that I was at that

well and took measurements there.

Q Now, referring to defendant's Exhibit E, I understood you to say that this hatched line, running along here, north of reservoir number 1 and the northwesterly was the boundary line of the red formation as displayed on the ground: was I correct in that?

A In a general way, as far as the surface conditions are concerned, that indicates the point of contact, in so far as I was able to discern it in driving out there; I made no especial effort to find out where the exact line was.

Q That is what you intended as the exact line, as far as you were able to determine?

A The surface conditions indicate that it is approximately where I drew the line on this map; that was surface location of the contact as near as I could tell; .

Q North of that line and towards the mountains there was no surface indications of that Red Hill at all?

A Well, I think there are some points east and north of there, there are some indications which I discovered later over at the Johnson well, which indicated that the formation extended over there.

Q On the surface?

A Yes, sir; in the flood channel.

Q Did you di cover that before you made that map?

A No, sir; I don't think I discovered that until afterwards; thismap was made soon after 1904, soon after I was broughtinto the case.

Q It was made before the Sunset wells were in the case wasn't it?

A Well, they weranot brought in until recently I think; the map was made early in 1904, and while I made some changes on there, I think the Sunset wells and the tunnel which I platted on the map, were platted on after the map was made.

Q When was this map made, Defendant's Exhibit F?

A The enlargement and the additions which I put on there, or had put on there, were made within the last two or three weeks, since the trial here.

Q When was the Red Hill platted on there, on the map defendant's Exhibit F?

A Well, within the last two or three weeks.

Q Since you made the map, defendant's Exhibit E?

A Yes, sir; there was a period of probably four years or more intervening.

Q Now, Mr Trask, as I understandyou to say, in this Red Hill formation, that the water that is developed in that formation, comes from channels through and in this Red Hill formation?

A That is correct.

Q And that there is a channel which supplies the wells opening into the Sadie tunnel, which is entirely distinct from the channel which supplies the Cucamonga Springs?

A Yes, sir; I so stated.

Q Now, do the waters move from one channel to the other? Is there any movement of this water from one channel to the other?

A No, sir; in the older alluviums, the intervening material between these channels is practically impervious - it is impervious to the ready movement of waters.

Q So in your opinion none of the waters that are in the channels which supply the Lone Star tunnel can get through or do mingle with the water which supplied the Cucamonga Springs?

A I make that statement as regards the waters after they have gotten down to that red formation, that they don't work easterly or westerly or laterally.

Q That is the character of all the channels in the Red Hill formation, that they are separate channels?

A Well, to a greater or less degree, in so far as we have been able to trace them. that is true.

Q I understand you to say there is another channel, which you thought supplied the I tunnel: does that have any connection with the Cucamonga Springs channel?

A There has been some evidence introduced here which indicates that it might.

Q You think the waters from those two channels are mingled in some way or it might be the same channel?

A The facts that have come in here inrelation to the pumping of the Lone Star tunnel, and the sympathetic actions of the waters in the I tunnel and in the big Springs indicates that there may be.

Q Well, now, I am speaking about the I tunnel: do you think there is a separate channel leading to the I tunnel, one separate from the Cucamonga Springs, or are both of those places supplied by the waters from the same channel?

A Well, I think those Springs may have a number of channels feeding into that area there, that might not be connected up one with the other, those large springs; they may have

several channels leading in there at different points, and that discharge water in that area of 10 or 15 or 20 acres.

Q Is it your opinion that there is another channel which supplies the water to the Lone Star Springs and tunnel and wells?

A The facts that have come out recently in the record in the last few days, indicate that the Lone Star well is tapped down into the stratum, which is delivering water to the Y tunnel; that seems very emphatic.

Q Now, you said the other day that all this water on the east side was available to the people on the east side, and that among the waters that were available, was the water from the Sourwine well: now, you consider that water on the East side, do you?

A Well, I classify it east side waters, because the developments during the time it was being bored indicated it was artesian water.

Q Have you any information that would lead you to say that that water from the Sourwine well, was taken from the Cucamonga Springs?

A Well, it is all out of that formation on the easterly side of it; there is nothing in here showing a direct relationship there, excepting that there in the eastern part of the Red Hill, the pumping of the Sourwine well has gone onduring those years, and that the Oil Springs were shrinking; but there is no well defined sympathy shown from those pumping records, except the general conclusion that x all wells which take water out of thatxeast side formation are draing water from the same source as the springs, out of

the older alluviums.

Q Then your only information, the only evidence upon which you base that supposition is that it is in the same formation?

A And is abstracting water from the same formation.

Q Are not the wells in the Radio tunnel extracting water from the same formation?

A Yes, but they are taking that water at points further west, and there is every evidence, emphatic evidence, of non-interference.

Q Then you think you have evidence of a non-interference of the waters of the Radio tunnel, non-interfering, that they don't interfere with the waters of the Cucamonga Springs?

A Yes, sir; my own observations bear that out, and the statements of Mr Stowell and others, who have been familiar for many years with theconditions, support it.

Q But you have no evidence one way or the other as to the Sourwine well?

A I make that deduction from the fact that it is in the sameformation; I have been unable to trace any direct sympathy during the pumping operations; the only facts I have are that the Springs have been depleted during the years that the pumping operations were being continued at the Sourwine well, and that the Sourwine well is located in that eastern arm or extension of the Red Hill.

Q But if you were able to makefurtherinvestigations might it not reveal the fact that there was no sympathy between the Sourwine well and the Cucamonga Springs?

A Oh, time and additional information might develop that

fact; that is purely speculative, however.

Q And going over now to the Sunset wells, have you any information or any facts that lead you to the conclusion that the waters from the Sunset well are drawn from the same channel that feed the Cucamonga Springs?

A I have not been able to directly emphatically trace the relationship as I have the relationship between the Lone Star and the Y tunnel ad the Big Springs; but the Sunset wells seem to be in the trend of the channel which is feeding the Y tunnel, and there is a more reasonable probability of drawing water from that common source, than there would be as regards the Sourwine.

Q Do you think it would be more reasonable to suppose that the wells of the Sunset Water Company were drawing water from the Cucamonga Springs than to think that the Sourwine well was so drawing?

A I think as a matter of probability that the facts would indicate that there was great or likelihood of the Sunset wells abstracting some of the water that would otherwise reach the Y tunnel and Cucamonga Springs, than there is of the Sourwine well.

Q What facts would indicate that the Sunset wells - -

A The Sunset wells are more naturally in that zone where there has been a considerable interference between the wells; Mr Stowell has testified to more or less interference on the 35 acre tract, and the Lone Star tract, one well with the other; and he has testified very emphatically to the contrary as regards the wells on the west side; there is very little testimony as to the Sourwine well; about the

Sourwine well is that it was artesian, and its location.

Q How far are the Sunset wells from the Lone Star?

A Something over four thousand feet.

Q How far are they from the Cucamonga Springs?

A About 6600 feet direct.

Q Now, have you, Mr Trask, or is there in this case, any comparative measurements of the water from the Sunset well, with any of the waters of the Cucamonga Springs, or the I tunnel, that would justify you in drawing the conclusion, that the waters of the Sunset well, in any way interfere with the waters of the Ixtunnel or the Cucamonga Springs?

A There are some facts and some measurements; take the fact as I say of the knowledge we have obtained by the recent information put in, that the trend of some of the channels at least supplying the Cucamonga Springs and I tunnel are from the northeasterly direction to a southwesterly; and the further fact that the Sunset wells are in that same formation, and in the general direction; and the further fact that when you add the discharge or the amount of pumped water which has been measured as coming from those wells and other sources of water which are drawn upon in that red formation, they make up the amount of water that is and has been a reasonable normal volume for the east side Red Hills.

Q You have given us, have you, all the facts that in your opinion bear out your theory that the waters taken from the Sunset wells are waters that would feed the Cucamonga Springs?

A I think I have enumerated the main facts; the fact of

being in the same formation - -

Q Then you have no comparative measurements at all?

A The comparative measurements I refer to are the measurements which have been put in evidence here as to the amount of water that has been taken out of the east side in all the years that records have been kept, and the measurements of the Sunset wells during a part of those seasons, and the part that the Sunset water makes in supplying the deficiency which is found at the points where gravity water has been obtained in years past; taking all of these facts and balancing them, the conclusion is that the Sunset supply is a part of the general supply in that formation on the east side.

Q Wasn't your object in putting in that tabulation to show that the people on the east side were getting as much water now as they did some years back?

A That was one object; one object to show the amount they had.

Q And now you say that the fact that they are getting as much water as they were a year ago, or ten years ago, is proof of the fact that these waters taken from the Sunset well are draining the Springs?

A That is proof of the fact that they are all drawing from the same source, and their volume is equivalent to what we would naturally expect the volume to have been if they had not tapped into the strata and interfered with the natural sources of supply of the Springs.

Q How far does the Red Hill formation extend easterly?

A I don't know how far it extends easterly.

Q It may extend ten miles further east?

A It may go clear through to Lytle Creek so far as I know; I don't know that it doesn't; I can't say that it does.

Q How far east are you going to stop, before you come to the limit of the waters that supply the Cucamonga Springs?

A Why, I believe at some point in my testimony, in connection with Exhibit F of defendants I have suggested the reasonable probability of some of the drainage from ~~[illegible]~~ Day Canyon as contributing to the sources of supply in and about the Red Hills.

Q Well, that is very near Etiwanda isn't it?

A The ~~[illegible]~~ Day Canyon surface waters go to Etiwanda I believe.

Q How far is that from Cucamonga Springs? How far is Day Canyon from Cucamonga Springs?

A Well, it is about four and a half miles east of a north and south line through the Springs.

Q And in your opinion a well bored in any of that distance would be - the waters therefrom would probably be waters that would lead to the Cucamonga Springs?

A They may come from a supply along the foothills which was maintained in part by a drainage of the watershed of Day Canyon and Deer Canyon. My own judgment is that that dike which I have spoken of, of which the Red Hills are a projection above the surface of the recent alluviums extends easterly and interferes with the percolating waters, retards the discharge of the percolating waters, even as far east as Day Canyon, or east of there; that being true, water reservoired in those gravels along the foothills, even if they

did not feed directly, would sustain in a measure the source of supply of the gravel beds along the foothills, and those gravel beds along the foothills are the source of supply of the older alluviums.

Mr Conner: Q You have testified several times in regard to the formation of the areas in which the wells of the several parties are situated- on the east the ancient alluvium on the west the more modern: Can you tell us there that division is, where the line of the division is, with reference to some objects or wells there on the ground?

A In what part of the field?

Q Well, that part on which the wells are situated, that immediate territory?

A Lone Star wells, the Sunset wells, and the Cucamonga Water Company wells in the east part of the Red Hill are in the old alluvium, and all possess artesian characteristics.

Q The dividing line is near those wells you mentioned?

A I don't know where the dividing line is; I don't know how far east it may go.

Q Well, say north and south; that is what I had in mind, if I did not say the north and south dividing line,- there about the eastern arm of the I tunnel, running north from there?

A Well, north from the I tunnel, surface indications are that the ancient alluviums are found at least half a mile north of 16th street.

Q Half a mile north of 16th street?

A No - A little in excess of a quarter of a mile north of 16th street.

Q Are there any indications that the line runs further north? Are there any outcroppings of the Red Hill material north of the point you mentioned?

A Well, directly north I don't know of any on the surface, as far as surface indications are concerned.

Q Then how far north does the Red Hill formation extend north, on the east side, how far does it run north there, the Red Hill formation? Up to the mountains?

A Well, I think it runs part way to the mountains, when you get down deep enough; on the surface the recent material is found after you get a short ways above the Base Line; in some places north of the Lone Star tunnel, I guess you have to go a half or three quarters of a mile before you get out of the red formation into the recent silts; but under the surface of the ground I would expect the old formation to extend back to the mountains and tie on to the mountains all along from east to west.

Q There is, passing up, more recent formation between the Star well or the Star tunnel, and the foothills?

A Yes, when you get up some distance, you get into the recent material in places.

Q Now, the outcroppings or the markings of the Red Hill material, running easterly from the smaller hill, northeast and easterly of the eastern arm of the Y tunnel, how far easterly do you find indications of the Red Hill material?

A Well, on the surface of the ground there are indications of the older alluviums over as far east as Hellman Avenue east of the Y tunnel, and of the Lone Star tunnel, and somewhat north of the Base Line, at the point where Hellman

Avenue intersects the Base Line.

Q. Where is that with reference to some of the wells that are situated on furthest east?

A. Well, on the surface, as shown on this map, that line of contact would be south of such is known as well K, which is in the south part of section 34, township 1 north, range 7 west.

Q. What is that well K?

A. Well, K is a Cucamonga well, which is a little northeast of the intersection of Hellman Avenue and 10th street or Base Line, the property of the Cucamonga Water Company.

Q. Then that red hill material there would form some obstruction to the water flowing from the north towards the Springs, or southerly?

A. That Red Hill at points east, would form a dike as I have described; and wherever the Red Hill formation is the gravels lying further north would be somewhat dammed or confined by the dike.

Q. Then the water flowing, or under any of the wells on the eastern side, and I mean by the easterly side, I mean easterly of the Star well there, any water flowing below those wells and through the formation there to get through that dike along there would have to flow through channels like you say it would be to flow down through from the north?

A. Yes, sir; I think there are channels through that Red Hill formation as far east as any wells shown on this map; water passing through the Red Hill formation is seeking through those channels, if that is an answer to your question, if I understand your question correctly.

Q Then water will not be found on any of that eastern territory except it strikes a channel in which water is flowing,- I mean enough for any commercial purposes?

A Well, I would expect in the eastern part of that Red Hill formation to get water anywhere I put down a well, I would expect at some point, if I carried the well down to any great depth that I would penetrate some one of the channels; I might put a well down in which I would tap into some very poor or close water channels, and I might not get very much water out of some of those wells, but the evidence, in so far as it has been developed by the borings of the Sunset wells, and the Old Settlers' well, indicate that those channels are prolific of water there, and I would expect others put down in adjacent territory to those wells also to be productive of water.

Q There would not be much difference between the eastern and the western side, so far as the saturation below the surface is concerned?

A Well, I think the whole mass, when you get below the water, is saturated.

Q And it does flow freely for underground water on the eastern side, the water passing through the mountain southerly?

A Well, that is a question of degree; it cannot be told how the water is flowing in any of those channels until you tap into them and ascertain that fact; they each have their local independent peculiarities which control the flow of water through them.

Q If it was in the ancient alluvium in its most compact form, as, for instance, if it was in the large Red Hill-- t at well 14, I believe it is-- any place that the well would be sunk into it you would find water that would flow sufficiently to supply a pump?

A I think I could say yes to that because I presume anywhere in the Red Hill you might put down a well and get very little water. I think there were wells put down in the Red Hill that were practically abandoned because they furnished so little water that it was not commercially profitable to pump them.

Q Does that compact form through which you couldn't get enough water to supply a pump profitably prevail to some extent, or more than it does to the portion where it can be procured in sufficient quantity for pumping?

A The only facts I have upon which to base an answer to that question is the fact that a majority of the wells that are put down are utilized. How far that can be carried I don't know. It would be a matter of experiment.

Q What is the general slope of the land on the eastern side of it-- the grade-- What is the direction?

A The general slope is south.

Q Any east?

A Well, there is very little in places.

Q In what direction would the flow be from Deer Canyon after spreading out on the surface?

A The present flood channel of Deer Canyon hugs the easterly wall of the canyon at the mouth of the canyon and flows easterly until it gets out upon the mesa. I think it

has a tendency to flow south and then west again, judging from the flood channel platted on defendants' exhibit F.

Q I think in answer to Mr. Goodcell's question you testified about a division where the water would divide and flow easterly and westerly. Can you tell me where that division line is with reference to some object on the map on the surface of the ground?

A The division line to which Judge Goodcell called my attention was the watershed line between the watersheds of Cucamonga Canyon away down to 16th street and the Deer Canyon down to the base Line, and is indicated on defendants exhibit F by a very heavy black line starting near the southeast corner of section 33, township 1 north, range 7 west, and then in a northerly or northwesterly direction to the mountains. That line marks the divide at the points between the two watersheds I have just described. In other words, rain falling on a point east of the line would have a tendency to work towards the axis of the drainage channel in the Deer Canyon area, while water falling on the west of the line would have a tendency to work and discharge into the flood channels or drainage channels of the Cucamonga.

Q On the one hand it would run easterly and the other westerly?

A Or almost south.

Q That line begins near the eastern end of the 16th Street wells?

A Yes; near the southeast corner of section 33, as I have described.

Q Now on the easterly side of the small Red Hill there and

through and under which the Star Tunnels run, there are some springs there or formerly were. Did you ever see those springs?

A Back in the 80's I knew that there was springy ground near the Lone Star Tunnels. That is what I understand you are referring to.

Q How do you account for those springs?

A I think that water comes out of the old alluvium and is forced through there through some of the old channels, by virtue of the supply of water from the mountains.

Q And are checked there by the Red Hill material?

A It came up through some old channel that was near the surface,-- or that had been eroded or fractured off.

Q Would that water ever have reached the Cucamonga Springs?

A I don't know that it would, in so far as the spring water that came to the surface.

A The water flowing underground and coming down to those points would never reach the Cucamonga Springs?

A No; the topography at that point-- the surface topography is such that when they become surface water they would turn southeast and the Cucamonga Springs would be southwesterly.

Q The waters when they came to the surface, the waters anywhere: could they ever come to the Cucamonga Springs?

A No, sir; it flowed down the drainage channel very near Hellman Avenue.

Q How far east would you have to go before water flowing southerly at that point would get to the Cucamonga Springs?

A The further east you go the further away you get from the Cucamonga Springs, and, of course, ~~meetx~~ more obstacles to the flow of surface water to the Cucamonga Springs. I presume you mean surface waters.

Q No, I mean underground waters.

A You were talking about surface waters before.

Q Were the springs that you mentioned that flowed by the Star Tunnel,-- was that all surface water?

A The springs that I remember back in the 80's was surface water. They made their appearance as surface drainage channel near the Lone Star tunnel. But there has been no water there in recent years, and the Lone Star tunnel and the Lone Star wells are deep wells and take water at a considerable depth below the surface of the ground.

Q Then those springs were not supplied by underground waters at all?

A Those springs were supplied and probably were supplied by some of the underground channels which had an easement or outlet on the surface.

Q Any underground channels at that point would not flow into the Cucamonga Springs--- Any of the underground channels from which the water comes to those springs would not have ever reached the Cucamonga Springs?

A I understand your question to relate to ~~xxix~~ those channels which brought the water to the springs at or near the Lone Star Tunnel?

Q Yes.

A Which had a vent or outlet there. I understood that to be your question some time ago and answered that any water

which came to the surface near those old springs would not have reached the Cucamonga Springs. They become surface waters when they come to the surface and drain southeasterly.

Q They were surface water that came to the surface just like the Cucamonga springs waters were . But how ~~xxx~~ ~~xxx~~ ~~xxxxx~~ were they fed?

A Through that old alluvium from some source on the north. They were really superficial channels of the old alluvium, but not the channels on which the Lone Star tunnel is working now.

Q Now the water of the Cucamonga Springs: was that a superficial channel?

A They are superficial down at the point where they are discharged. That water of the Cucamonga springs may have come from considerable depths.

Q May it not have been the same with the water at the Lone Star tunnel? They may have come from very low depths?

A Well, I think the ~~similar~~ feeding the Big springs are pretty well buried. The indications are that they are. We have not been able to tap into them by wells where they run directly north, and if they run northeasterly, as some of them may, the Lone Star wells possibly have tapped into them. Those Lone Star wells are several hundred feet in depth.

The Court: Q Is it your idea that there is any underground stream in the vicinity of the Red Hill?

A Not in the sense of an underground stream, no, sir.

Q It is all percolating water around there?

A Yes, sir; I believe the supplies to the wells, tunnels

and cienegas is percolating water.

Q Do you believe that the water is in contact all the way through?

A I believe that formation is all saturated when you get below the water plane lines; but I don't believe there is any interchange of waters between one porous channel and the other. I think the material between those channels--

Q You are not speaking of the immediate channels, but the--

A I am speaking of the channels that feed those springs, or cienegas.

Q Is it your opinion that water drawn out of any one of those sources may or may not relate back so as to affect the supply of the other sources?

A I don't think that the drawing of water out of the lower outlets will interfere with the supplies above. For instance, take the possibility of the same channel being tapped into by the Lone Star wells, of which there is some evidence here: I don't think the drawing of water at the springs themselves will interfere with the amount that can be drawn by the Lone Star pumping. But the amount that can be pumped will interfere with the amount discharged down at the springs.

Mr. Conner: Q Where in your opinion does the old material take in water on the east side?

A At some point along the foot hills along the base of the mountains either north or northeast or northwest. There have been no facts put into this case which would show the exact location of any of the channels supplying

any definite source. In other words, there is nothing that you can trace definitely. The best evidence we have had here of the intimate relation is the spreading of waters in Cucamonga Canyon and the effect felt immediately south near the Lady tunnel.

Q Some time during the time you were testifying you gave the amount of water pumped out of the Harmosa well. Do you remember what that was?

A It was 20 inches, Mr. Conner. I made one measurement there in the year 1904 and found they were pumping 20 inches.

Q You never made but the one measurement?

A That is the only measurement I made there and I was there once later and there were no facilities for measuring. Things were locked up so that I couldn't get any measurement, and I don't know that I ever went there.

Q You know where the well is situated?

A Yes, sir; I have been to it.

Q Will you show its location on the map with reference to the divisions of the territory? It is on that map over there.

A This is plaintiffs' exhibit 77 to which you refer.

Q Yes, sir.

A The well you refer to would be in the northeast quarter very near the corner, of section 34, township 1 north, range 7 west. And if I were referring to defendant exhibit E I would say it would be very near the upper right hand corner of the map. It would be on the map or very close to the margin.

Q How far easterly of the 16th street wells, and I don't care about your getting down to feet,-- you can use miles.

A It would be about one and a third miles east and from five eighths to three quarters of a mile north.

Q And how far from Base Line?

A Nearly a mile from Base Line.

Q Do you know how deep that well was?

A No; their pumping arrangements were such that you couldn't drop anythinginto it to measure it.

Q By means of those channels that water flows through to the Red Hill formation southward, the water would pass south just about as quickly as it would on the west side through the gravel?

A I don't know that I understand the question, but the velocity of the water in those channels would be variable. Each has its own coefficient of movement. And that would be true of two channels side by side.

Q On which side, east or west, is the water level the highest?

A That depends on where you go.

Q Say easterly from the 16th Street wells.

A The water levels in the 16th Street wells in the gravel basin is higher than in the water levels of the wells east after you pass into the old alluviums.

Mr. Britt:-

Q There are several matters which were referred to in my cross examination of Mr. Trask the other day which for one reason or another were passed over without coming to a

conclusion; and one was the matter of this map, a copy of exhibit 12 which Mr. Trask has. Have you the map here?

The Court: That is the map in the McPherson case?

Mr. Britt: Yes, sir; Exhibit No. 12 in that case.

Q. I want to refresh your recollection by some references to your testimony given in the McPherson case. You have a copy of your testimony given there? Will you refer to page 1042, at line 8? Did you then testify with reference to that map of which you have a copy and which you refer to here as exhibit 12 in that case in response to some interrogations by Judge Gragg, that that map is approximately correct of the matters thereon delineated?

A. That is correct.

Q. And further, at page 1331 of the transcript of testimony in that case, did you testify as follows, in response to questions touching the same map, and I refer to line 24 of that page? With reference to the cienegas, how are they located on the map, by you or from those other data?

"A. That general statement that I made covers everything on the map except the wells. The wells are carefully surveyed. Anything else, the lot lines and cienegas and washes are scaled in. I won't vouch for 25 or 50 feet; but for the purposes I deem them accurate."

Did you so testify?

A. I presume so; I find it here in the record.

Q. Your recollection being refreshed by reference to the testimony given at that time, are you able to say now whether or not the features which are depicted on the copy which you have of the map are substantially correct as

they existed at that time when the map was made, which I understood you to say was early in the year 1900?

A. I think so, Judge Britt. They were scaled-- a great many of those were taken from Mr. Stowell's maps etc. I never measured them on the ground. I assumed that they were correctly taken from a map that Stowell supplied, and they were substantially correct for all thepurposes I had in mind at that time.

Q. And you made, as testified at that time, observations yourself?

And I looked over the ground and saw where the washes were depicted and how they laid with reference to cienegas, did you not?

A. I think I went over the ground very thoroughly and I had a very correct knowledge of the general topography and general details in that particular area at the time I testified.

Q. Now then, I understood you to say that you had only this one copy of that exhibit 12, and as has been stated, the exhibit 12 itself seems to have escaped from the files in the clerk's office in that case, so that it cannot now be found, or at least it has not been found. And not desiring to deprive you even temporarily of the custody of the copy that you have, I have had a tracing prepared of a portion of that map which exhibits the location of the main Cucamonga wash with reference to the Red Hills and the cienegas adjacent, both on the east and west sides of what has been called the main Red Hill or the Big Red Hill, and I would like you to examine this, if you will, in connection with

the copy of the map, and let me know whether or not it is a substantially correct representation of the map showing those features, aside from the designation of wells, which, in order to avoid confusion I have caused to be omitted from this tracing, that is, the ~~numbers and~~ locations of the wells are shown and the elevations and so on, but the numbers I have not taken from the copy of the map that you have in your possession. Will you favor me to that extent?

A The tracing seems to cover some of the features on a part of the map.

The Court: Q Is it a correct reproduction of the features which it purports to reproduce?

A So far as I can see it seems to be. There are only part of the features that are taken off. I am unable to discover that they took off anything that is not here.

The Court: I suppose the purpose was to show the relations of the cienegas in respect to the Red Hill. Is it a correct representation and reproduction in that respect?

A It seems to outline the hatchings that are traced on this map-- the hatchings. In so far as I have examined it, it appears to cover the features which you have traced off. It is not a tracing of the whole map, even of the area that you cover.

Mr. Britt: Q But so far as it seeks to represent certain features on that map of which you have a copy, it seems to be correct.

A Yes.

Mr. Britt: We offer this tracing in evidence as a reproduction, as far as it goes, of the chart or map to which

the witness refers.

Mr. McKinley: I would like to ask a question or two about it. Will you state whether those cienegas were put in there by you from surveys, or platted in from other maps?

A. The only thing I have a recollection of putting in from surveys was the location of the wells. That is, there were even some wells put in there after the surveys were made by me. That map was something of a mongrel. It had some attention from me. I made surveys locating wells and sketched them in on a piece of detail paperm on the scale on which this map is produced, and I forwarded t em to Mr. Finkle and his draughtsman finished the map.

Q. Will you state whether the cienegas represented there were cienegas containing water or showing the old cienegas that had contained water?

A. I have nothing to freshen my memory upon, but my impression is that I sketched in areas from a map Mr. Stoell furnished, showing those cienega locations. I think it did not represent the exact limits of the cienegas but represented the limits defined on the map.

Q. I now call your attention to this west cienega: Was it in existence or was the cause of its disappearance in dispute?

A. That was the cause of the case-- the drying of the cienega. There was very little water running out of it. But th e area that was covered, I have no recollection. I haven't looked at my notes. I might find something in my old field notes.

Q. Suppose youexamine that. I have no objection to the map.

Q Said map, being a tracing of a copy in the possession of Mr. Trask, of Exhibit 12 in the McPherson case, is admitted in evidence as

PLAINTIFFS' EXHIBIT 81.)

Mr. Britt: Now, Mr. Trask, those cienegas which are depicted on that tracing,-- those east side cienegas,-- have since that time almost entirely disappeared, have they not?

A I think the greater part of the area of those cienegas as shown on that map, is under cultivation now.

Q And the cienega on the west side of the Red Hill as there indicated is also now cultivated land?

A The greater part of it is, I believe. I know they have been cultivating closer and closer towards the center of it from year to year.

Q What company has possession of that land where the west side cienegas were situated at that time?

A The Cucamonga Water Company owns the greater part of that area of that cienega.

Q And which concern owns the balance?

A I think the Cucamonga Land and Irrigation Company owns a portion of it. The eastern portion of the cienega is their lands.

Q And the balance is on the 90-acre tract?

A I think that is the situation.

The Court: Q What cienega is it that you are referring to?

A The West Side or Cienega D in the McPherson case.

Mr. Britt: Q While we are on the subject of those ~~xxxxxxxx~~

topographical features there, I want to call your attention for a few moments to Exhibit F,-- the figure there about which so much has been said, done in some flagrant red and designated "Red Alluvium" on the map. That is one of the features, I believe, which you added to this map which was not found on the original copy or chart which is called the government map?

A You are correct.

Q Now, Mr. Irask, is that district, even with the explanations which you have made concerning its boundaries and the angle of the Haskell wells and so forth,-- is that district done in red on exhibit F all one red hill? Is theere not a division into several different elevations?

A There are two or three summits; two or three different points. But it is all the same mass of material, in general terms.

Q Well, let us see. It is all the same mass of material where? On the surface of the ground?

A Practically so.

Q Following theline of the main Cucamonga wash as shown on this tracing exhibit B1, just now filed, is there not quite a depression extending down through the district which is depicted here as red alluvium on the map exhibit F, below the line of the 16th Street wells of the San Antonio Water Company, and thence southeasterly or somewhat east of south in the direction of the Creek Division box and in the direction of the winery, in which the surface is not of red material, and where it has boulders and gravel and sand and a variety of detritus similar to that which

exists in the neighborhood of the 16th Street wells, say #4, #5 and #3?

A There is a saddle at the point which you have mentioned.

Q Isn't there quite a little valley there?

A It is an eroded channel down through that saddle where the flood waters of Cucamonga Canyon pass out at times, and in that wash you find some recent and some ancient detrital matter mixed.

Q Is there not quite a little valley there?

A Oh, there is a depression.

Q And near the west side of that depression the wash of Cucamonga Creek is filled with granite boulders and worn gravel and sand of varying degrees of coarseness, isn't it?

A There is some gravel and boulders. It is a flood channel and the detrital matter that came in the floods, some of it remains there. Much of it was carried below.

Q And the depth of it is unknown?

A I don't know that anybody has cut in there to a depth to determine that. I know there have been some cuts made in the flood channel in the spring above the intake of the 30-inch pipe line at points where the Cucamonga Water Company have been taking water from the channel. They gathered the spring water by cuts in there some feet in depth. I think some of the cuts were 7 or 8 feet, and the material in there is more of the ancient alluvium material than of the recent that they have cut into, indicating that they are possibly in the ancient material. It may not be, but it may be just above it. All the facts point to--

Q Oh, just answer the question. You saw the cut that was

made from the Y tunnel extending southerly or southwesterly down toward the Creek Division Box, did you not?

A I did.

Q You produced some photographs of it?

A Yes, sir .

Q And you were present a few days ago when the judge of this court attended by some of the attorneys and sundry officers of the court made an inspection of it?

A I was one of the party.

Q That material which was exposed there in that cut at the mouth of the Y tunnel, how do you describe that? As some of the older alluvium or some of the more recent?

A I think the greater part of it and possibly all of it comes out of the older alluviums. There was a jumbled up mass of material. There was some of the vegetable matter and soil which you find in the cienegas as theproduct of decomposition of vegetable matter mixed with sands and silts, and there was an absence of much of the fine silts of the ancient alluvium there by virtue of the water having washed them away.

Q The banks of that cut were mostly granite boulders and gravel, or are at the present time? A There were pebbles and some wash material, such as you find all through that alluvium. There may be recent material in different places on that hed Hill left at times when waters have flowed overv them and carried recent material over. I haven't examined it closely, but the impression I got was that most of that material was ancient alluvium.

Q That is what you call ancient alluvium, such as is

disclosed at that cut?

A If you examine those rocks you will find them much more thoroughly oxidized than what is in the debris cone.

The Court: Can you from an inspection of samples produced tell which is ancient or modern alluvium?

A Sometimes you can and sometimes you cannot. If you find your rocks and pebbles have become more or less rotten so that when you hammer them they come to pieces, you are reasonably sure that you are getting material that comes out of the old material. At the same time, if you go into the washes and find rocks that break with considerable effort and there are no oxidized contacts through the rock, you know you are in the recent. But that is not all of the criterion. There are formations there that I would defy anyone to correlate.

Q You mean, then, that it is guesswork whether it is ancient or modern?

A No. You have to take other circumstances. You will find some of the old alluviums very little decomposed.

Q What are the other criteria?

A The surrounding geological conditions. For instance, if you would dig down on the top of that red hill you would strike into some formation where you would find a good sound rock. That wouldn't prove that it was recent material thrown in there. It would simply prove that you had some material that was hard when it was laid down and resisted the elements more thoroughly.

Q According to your classification here, I have been trying to find out what were the criteria and indicia of one

or the other. You have spoken of the rotting being an indication of ancient formation, but not always. What are the otherb tests?

A The other tests are the material in which they are imbedded. If you are going out in the wash, on the surface of the present wash, and you find rotten material there, you know it is something brought in from some other point. Some of the materials that you would find in the older formation. The degree of decomposition has not been the same throughout the mass of those old alluviums. If it had been it would have melted down and you wouldn't find waters flowing through them.

Q Am I to understand that it is difficult after all to determine from an inspection of the material itself whether it comes from the ancient or modern deposits?

A That depends on where you found the material.

Q Irrespective of that. Suppose you had a hat full from two different formations: Could you tell from an inspection of the material itself? I am not asking about its location or companionship.

A In most cases I think you could. There might be some material presented of such a character that one would be in doubt.

Mr. Britt: Now then, referring further to the district called "Red Alluvium" on the map exhibit F, when you pass westward of the wash which I think at the request of Mr. Goodsell you showed with a lead pencil, extending in the direction which on the ground would be southeasterly from the Rubio well, indicating the line of the main Cucamonga

wash through that district,-- when you pass easterly from that do you not ascend a considerable elevation before you reach the locality where the Lone Star Tunnels are depicted or where the Lone Star Tunnels lay which are depicted by certain marks on this map in the district marked "Red Alluvium" and which markings indicative of the Lone Star Tunnel, resemble caterpillars very much,-- I say do you not ascend a very considerable elevation?

A. Yes, sir; the ground rises as you travel between the points you specify.

Q. And then before you reach the Lone Star tunnels you descend the same elevation, do you not, on the easterly side?

A. Yes; there is a surface divide between these two points.

Q. Now if you had protracted this line of division between the water shed of Cucamonga Creek and that of Deer Canyon through the red alluvium on exhibit F, it would be drawn along that same last mentioned divide, would it not,-- that ridge or elevation between the Cucamonga Springs and the Y tunnel on one side and the Lone Star tunnel on the other?

A. That line would project down through there at some point. I haven't traced it. In putting that line on my only object was to get the area to Base Line. I didn't get below Base Line.

Q. And isn't that area when you take it down to Base Line to a great degree arbitrary?

A. I think not. That line is drawn approximately at right angles to the contour lines there.

Q. Do you think any part of the water flowing in that

you have marked as the Deer Creek or Deer Canyon watershed, flowing over here where I lay my pencil, which is a few hundred feet north of the Base Line and about half way from east to west in the district which you have called the watershed of Deer Canyon,-- do you think water ~~thxxxxg~~ falling in the form of rain could ever reach the Cucamonga Springs?

The Court: You refer to the watershed of Deer Creek rather than Deer Creek itself?

Q Yes. And then I asked him if those waters on the surface will flow to the Cucamonga Springs, and take it further than you took it south.

A The waters would tend to flow at right angles to the contours.

Q It would flow off to the south?

A Yes ; the rule is, everything else being equal, they will flow at right angles to the contour lines.

Q Doesn't the mountain range extend somewhat from southwest to northeast as indicated by the contour lines?

A That map is hardly of sufficient extent to answer that question.

Q Take this line of elevation-- this is the 2000-foot contour-- and you observe that it comes down almost to Base Line on the west side of the map in the watershed of San Antonio Creek?

A That is true of that line, that it gets into the watershed of San Antonio Canyon.

Q While on the right hand side it is some three miles distant from Base Line, isn't it? It is two miles further

north there, fully, than it is on the left hand side of the map, which indicates the boundary of the San Antonio watershed?

A The contour which you refer to, namely, the 2000-foot contour, at Etiwanda is about three miles north of Base Line; and on Hellman Avenue it is about two miles and a half north of Base Line.

Q And at the western boundary of the San Antonio watershed

A At the western boundary there it runs down to about, approximately, one mile north.

Q Then the effect of bringing the so-called watershed of Day Canyon and of Deer Canyon down to Base Line, and the watersheds of Cucamonga Creek and San Antonio Creek down to the same line,-- when you come to give the area in square miles,-- is to greatly magnify the extent of the watershed of the Deer Canyon and Day Canyon as compared with that of the Cucamonga Creek and the San Antonio Creek, when you consider the mountain area included in the two?

A I don't think there is any attempt to magnify anything, Judge Britt. I plat ed the facts as I found them. I platted that line in accordance with the crest between the different ~~xxxxxxxxx~~ watersheds.

Q Take your Deer Creek watershed and you have 20.4 square miles.

A Down to Base Line.

Q Of which two-thirds lies on the plain and one-third in the mountains. Isn't that so?

A I hardly think that is correct, but I haven't computed it.

Q What are relatively the areas of the plain and the mountain area?

A I should say that about half of the area was south of the 2000-foot contour in that watershed as near as I can get it off hand.

Q The 2000-foot contour is itself considerable south of the foot of the mountains, isn't it?

A Well, it is in the foot hill range.

Q Suppose you would take the same scheme of dividing the San Antonio Watershed, how much of that watershed have you got north of your 2000-foot contour as compared to that south of it?

A I think about threefourths of that. I don't remember the area.

Q Do you mean to say that this district below the 2000-foot contour is one fourth as much as that above, in the San Antonio Water shed?

A It is about one-fifth, approximately. One fifth-- no, excuse me. One seventh.

Q So then so far as to productivity of run-off is concerned, the productivity of water, the watershed of the San Antonio Creek and of Ducamonga Creek is very much greater, relatively to the area than in the case of the Day Canyon and the Deer Canyon watershed? Isn't that so?

A It probably is as to the Day Canyon where the watershed is brought down to 16th street. But in those computations I have given you the run-off as figured on the area between different contour lines, so that you can compare them accurately if you chose. The same rule is used in computing

the run-off in each of those canyons and the elevations were taken in each canyon between the different contours.

Q. To what extent do you think that the Deer Canyon watershed contributes to feed the flow of the Cucamonga springs?

A. Well, it is a question of percentage in mathematical probabilities. Take the Day Canyon and take the red lines which I have drawn--

Q. I am asking about the Deer Canyon

A. Take the Day Canyon and the probabilities are that the Red Hill formations and the sources of water which come from them benefit by at least 40 per cent. or 50 per cent. of the waters that that canyon contributes to the old alluviums--

The Court: The question is what proportion of the water o f the springs comes from the canyon.

A. It wouldn't be unreasonable to say that 50 per cent. o f the water which came into the old alluviums and are drawn out in the Cucamonga springs might come from the Deer Canyon; and on inspection of the map and the topographical conditions and the relative locations of the springs in regard to both Deer and Cucamonga canyons, I think that is a reasonable hypothesis.

The Court: Q. In that answer just what do you mean by the Cucamonga springs? Do you mean all of the springs around the Red Hill or the East Side Springs?

A. I mean the big springs on the east side of the Red Hill and the developments which are tapped into those supplies in the shape of wells etc.

Q. You are confining your answer to the east side?

A Yes, sir; and I think in all my testimony I have referred to the springs on the east as the Big Springs.

Mr. Britt: Q To what extent, in your opinion,, does the water of the Cucamonga Canyon get over into the watershed of the Deer Canyon? We have a large percentage of water from Deer Canyon going over into the Cucamonga watershed to supply the Big Springs, which is in the Cucamonga watershed?

A On an inspection of the map and the same elements which I have used in estimating the amount of water which would come to the Big Springs from Deer Canyon, I would say that 25 per cent. of the waters that went into the old alluvium might feet the east side of the Red Hills or the Big Springs.

Q That is not what I asked. I inquired about the exchange or the extent to which there is an exchange of waters between the two watersheds, what part of the Cucamonga water exchanging into the watershed and finding its way into the Deer Canyon watershed?

There is a probability that 25 or 30 per cent. of it may do so.

The Court: When you speak of the watersheds of these two canyons, how far south are you considering those watersheds as extending?

A In estimating the available supply of water I have carried the area down to base line; and in answer to his questions I have referred to the canyonsxx and not down to base line. The supply that comes out of the mountains at the canyons. And I have based my estimates on the percentage of area that would be in the adjacent watershed by the swing of

the fan.

Q That is just the point. You must have considered the watersheds of the respective canyons. But you have spoken of 50 per cent. of Deer Canyon water going into the Cucamonga--

A No; my 50 per cent. was what water would supply the Big Springs. His question was about the Big Springs.

Q Well, perhaps you are right. I was trying to find out what you meant by the term watershed; how comprehensive it is.

A In these recent questions I have taken into account the watershed above the pivot on which that flood stream swings.

Q Yes; but how far southward? You say 25 per cent. of the water of the Cucamonga Canyon finds its way into Deer Canyon.

A I mean the area above 16th Street in each instance, as the line of 16th Street is really the controlling factor as to those springs. What may come in below would never benefit any source of supply.

Mr. Britt: Q That is, Base Line?

A Yes, sir. For that reason I drew my lines on exhibit F, the red lines showing the oscillation that each stream may take,-- I only drew them to Base Line.

The Court: What did you intend the red lines to represent?

A Take Cucamonga Canyon, for instance: I have drawn two red lines showing an angle of 110°. Those lines are drawn to represent the area through which the Cucamonga flood waters might have been spread or over which they might have

been spread in the building up of that debris cone.

Q The angle of influence?

A Yes, sir; and that represents a fan of 118°.

Mr. McKinley: Q By Cucamonga flood waters you mean the water that comes in above that point?

A Yes, sir; above the intersection of the two red lines. They would spread over the area at some time during the building upm of the cone.

THE Court: Q And the area between the two lines, is that on the assumption that the mass is homogeneous?

A No; there would be a constant interference and overlapping. It shifts from one side to the other.

Here the Court takes a recess until to-morrow, March 25, 1909, at ten o'clock a. m.

--------ooOoo--------

J. W. McKinley

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

| | |
|---|---|
| Cucamonga Vineyard Co et al<br>Plaintiff<br>vs.<br>San Antonio Water Co et al<br>Defendant | March 25, 1909<br>Vol. 38 |

Index.



I. BENJAMIN, Official Reporter

Thursday, March 25, 1909. Thirty-eighth Day.

F. E. TRASK.

(Cross Examination Resumed.)

Mr. Britt: Q. Following somewhat the line of one or two questions yesterday afternoon, I will inquire of you further to what extent, in your judgment, the water of the San Antonio watershed does, in general, spring over into the face developments of one kind or another or natural exudations of water in the Cucamonga watershed? We are speaking now of the natural movement of the water.

A. Well, of the surface waters, none of them discharge into the Cucamonga watershed on the surface. But the gravel mass of the debris cone of the San Antonio Canyon, probably more than 50 per cent of it is within the watershed of the Cucamonga Canyon, and I would expect at least 50 per cent, judging from the comparative areas of the gravel beds, are within the Cucamonga drainage area-- surface area. I would expect possibly 50 per cent. of those storage waters would benefit the gravels within the watershed of the Cucamonga drainage area down to Base Line.

Q. Benefit the gravels in what way? By percolating into them?

A. Yes, sir; by maintaining and supporting the elevation of water in the gravel beds.

Q. By percolating into the confines of what appears on the surface to be the drainage basin or watershed of Cucamonga Creek?

A. Yes, sir; it is percolating water; it is not surface water.

The Court: Q. Do you mean by that that any portion of the water sinking into the debris cone of the San Antonio Canyon would naturally tend to supply the gravel beds from which the

springs in the vicinity of the Red Hills take their water?

A Yes, sir.

Q And that they would help supply those springs?

A Yes, sir; the particular waters themselves might not reach those springs, and they might. It is not impossible at all, if you study the debris cone and the area over which the flood waters of the San Antonio Canyon have swung during the building up of that debris cone. You will note that in the swing to the east the flood waters of the San Antonio Canyon, in all probability may have gone fully as far east as the Cucamonga Big Springs or that section of country, and in that sense the saturation of the gravel mass that we term the San Antonio debris cone,-- the saturation of that mass of material which is in the watershed of the Cucamonga Canyon, when the mass is brought down to Base Line,. That is, that there is a common area over which both the waters of the Cucamonga Canyon and the waters of the San Antonio Canyon have oscillated back and forth in the building up of those cones.

The Court, Q You speaking of the swinging of the discharges of water, in the channels, in building up these debris cones, swinging over quite a large area: Then you do not, as I understand, agree with Mr Schuyler's statement in the McPherson case, that the tendency of each succeeding storm channel would be to superimpose over the preceding one?

A I do not agree with that; that may be the case in some instances, but it would not follow naturally; if that were so it would build up a knife edge, and that is against all the laws of hydraulics; It would have that tendency to build

1 up a knife edge, if they were built up one above the other
2 as you suggest/
3 Mr Britt, Q Considering the extent of reciprocity, to what
4 extent does the water of the Cucamonga Canyon reach into and
5 percolate into the watershed of the Cucamonga Creek, making
6 an interchange of water?
7 A Well, in the case of the waters that go into the debris
8 cone of the San Antonio Canyon, the best inference that one
9 can get, of the waters that go into the Cucamonga water
10 shed would be to study the probabilities in connection
11 with the field over which the flood waters build up the
12 debris cone; I would say at least fifty percent, as a matter
13 of probabilities, atleast fifty percent of the waters under
14 that debris cone, would support and maintain and directly
15 or indirectly supply the saturated mass of the Cucamonga
16 drainage area/
17 Q I was not repeating the question I put to you before,
18 but I was inquiring about the extent to which the waters
19 of the Cucamonga Creek or Canyon do percolate over into
20 what appears to be on the surface the watershed of the San
21 Antonio Creek.
22 A Well, I got your question turned around.
23 (Question beginning on line 3, this page, read.)
24 Mr Britt: Change that to San Antonio Creek.
25 (Question read as follows: Considering the extent of reci-
26 procity, to what extent does the water of the Cucamonga
27 Canyon reach into and percolate into the watershed of the
28 San Antonio Creek, making an interchange of water?)
29 A Well, that makes another question than, even, than I

1 understood it, or you either.

2 Q I first asked you about the water of the San Antonio Creek-

3 A I suggest that we begin over again, question and answer.

4 Q No, the first question is completely answered.

5 A I understood your first question related to the waters of

6 the ~~San Antonio Creek~~ Cucamonga Creek coming from San Antonio

7 Creek; and the next question I entirely misunderstood,

8 and I will now give the answer that I should have given.

9 (Question as contained in parenthesis, beginning on line 25,

10 previous page, read to witness.)

11 A In the same way, in studying the percentages of areas

12 of the Cucamonga Debris cone that are in the Cucamonga water-

13 shed, down to 16th street, and that part of it in the San An-

14 tonio watershed down to 16th street, I would say as a question

15 of probabilities, that there were not to exceed five to ten

16 percent of the waters from the Cucamonga Canyon that would

17 get into the watershed of the San Antonio Canyon, at a point

18 above Base Line. An examination of this map will show that

19 the west watershed of the Cucamonga drainage area is consi-

20 derably removed from the Red Hill westerly, and that a good

21 part of the theoretical area over which the San Antonio Canyon

22 has built up a debris cone, a good part of it is really in

23 the watershed of the Cucamonga drainage area, down to the

24 Base Line.

25 Q How much of it penetrates into the drainage channel of the

26 San Antonio Creek, north and south of the Base Line, not

27 limiting it by the Base Line as a southern boundary?

28 A Well, that question is very problematical; it is getting

29 so far away from our field of operations that speculation and

inference -

Mr Britt: Well, never mind that then.

The Court, Q Do you know if in the Bodenhamer well, or in any of the experimental shafts in the debris cone of San Antonio Canyon, there was any of that red clay encountered? Are you sufficiently familiar with the log of the Bodenhamer well to answer?

A I am not; but I have had my attention called to it; that is, that debris cone, is recent formation until you got to a point easterly from the San Antonio Heights; I don't know what some of the wells which are east of the Bodenhamer well may have shown; in fact I have not examined them.

Q You put down some experimental shafts yourself did you not?

A Not in the San Antonio Canyon until you got in the mouth of the Canyon; there it was all recent material; those shafts I put down in the San Antonio Canyon were in connection with the developments at the San Antonio tunnel , which is above the mouth of the canyon.

Mr Britt, Q On the map, Exhibit P, you have indicated an area as a gravel basin, in some large black letters: Do you mean to be understood that there is no gravel basin east and west of the region depicted in that manner on the map Exhibi t P?

A No, sir.

Q But only that there is a gravel basin in that territory, but not undertaking to definemite boundaries?

A In a measure the whole valley between the mountains clear through to the Santa Ana River is a gravel basin; I

have aimed to depict on Defendant's Exhibit P the probable area of gravel basins , which were tributary to the 16th street wells, probable area, in general terms.

Q The water of the Deer Creek Canyon is coming over there to the extent that you have stated yesterday, into the Cucamonga water shed: do not those waters also tend to feed, and are they not to a great extent, on the theory that you stated here, tributary to the 16th street wells?

A Theoretically they are; and practically they probably are more or less; any waters that go into the gravels up near the foothills whether it be out of the San Antonio Canyon, Deer Canyon or Day Canyon, helps to maintain the saturated mass up there, and that saturated mass supplies both the recent gravels and the older formation, so the more water that is poured in at the foothills, the greater the resources of both formations below as regards water/ .

Q Asking your attention to page 93 of the Reporter's transcript, at line 10, elevation of water in the well 8 of the San Antonio Water Company, August 16, 1905: Should not the figures 1330.8 be 1340.8?

A No; those figures are correctly given; that well was pumpingmon August 16th.

Q Well, wasn't it pumping on August 5th?

A No; I have no note of its pumping on August 5th.

Q Well, you notice that as compared with number 7, it runs right along at pretty nearly the same elevation, and in the next measurement when it is resumed after this time, it is given exactly the same elevation as number 7; but at this point there is a difference of 10 feet. That is

on August 16th?

A Well, from September to November 4th, inclusive, I took no measurements on the water in that shaft, but I put a note in my book that it was pumping on each date, on each trip that I was there; I presume there was some reason why I could not get the depth of the water on those particular dates, but I have made a note - -

Q Well, I was disposed to think that the figure there was an error, because there is no such difference between two wells at any time that season.

A That is due to the fact that number 7 was not pumping on that date and number 8 was.

Q Wasn't number 6 being pumped quite com only, when number 7 was not? They are only about 120 feet apart.

A Well, I think on the dates when they come together again in the latter part of the year, along there, is when ~~they~~ ~~were pumping~~ neither of them were pumped, probably. Those wells are close together and they have more or less sympathy.

Q The pumping of one affects the other?

A Yes, sir; very quickly. And when you cease pumping they quickly come to the same level again.

Q You take the two columns, and the elevation of the two wells coincides almost exactly, with very slight variation, but at that one place there is a difference of ten feet.

A Well, my method, or reason for that difference on that particular date, would be that the pumping had not lasted very long or continued very long at the time I made the measurement, and the effect had not been felt on well number 7/ . My guess would be that they had not been pumping possibly but

a few hours, possibly less than an hour; I don't know; I have no note to that effect but that would be my inference.

Q Well 7 was not usually, was it, pumped at all?

A No; but well 8 was, and the pumping of well 8 influenced the level of water in well 7; if well 8 was pumped only a short time that influence might not have been felt, and that probably was the condition that obtained at the date of that measurement.

Q If you look over the two columns, I think you will anywhere else fail to find any such difference as ten feet between the two wells.

A That may be accounted for by the fact that I might not have measured quickly or very soon after the pump was started up. If I went there and took a measurement within two hours after that pump began operating, I would have found quite a difference of level between the water of well number 8 and well number 7; but if I had gone there a day or two afterwards I would have found very little difference.

Q Well now, let me ask your attention to the continuation of that table at page 2543, line 14. The measurement of November 22, 1908 of that well no. 8. It is given here in the table as 1348 feet for the elevation of the water. Shouldn't that be 1358?

A On November 22, 1908, well no. 8 was pumping. On November 8 these wells stood practically at the same level. I think the record shows them to be on the same level.

Q Have you got a measurement for November? It doesn't appear here in this table.

A Well, I have just a fragmentary measurement for November 8.

Q What have you on November 8? Give all you have on that date.

A On November 8 I have a measurement showing that well no. 2 was 1366.3 ; well no. 3 was 1341.9 and it was pumping.

Q Was well no. 2 pumping?

A No memorandum to that effect.

Well No. 4 I have just a memorandum here that it was pumping. Well No. 5, the elevation was 1362.5, and well No. 7 the elevation was 1362.5, and well no. 8, elevation 1362.6. That is all the measurements I have on that date.

On November 22, wells 1, 2, 3, 4 and 8 were pumping. Well no. 7 was not.

Q On November 8 there is given here only the elevations of the two Haskell wells, and they are identical on that date. You find them there, do you?

Q I find the two Haskell wells on the preceding page. On November 22-- they stood at the same elevation on November 8. On November 22 there is a difference of some 11 feet or more.

A You will find on the preceding pages all those measurements which I gave you.

Q This appears from your notes , 1348. at well no. 8, on November 22.

A That is correct. There are some explanatory notes in connection with those measurements that you will find in the tabulation on page 2477-2478 in connection with that pumping, which will show that there was an intermittent amount of pumping in November. It simply substantiates my explanation.

Q The tabulation appearing at page 2477?

A Yes, sir; and in corroboration of what I said, you will

find under date November 23, 1908, the remarks "well no. 1 pumped 10 days; no. 2, 11 days; numbers 3 and 4 29 days in November." There was some rain that month and the pumps were not run continuously.

Q The next thing is something else. At page 2659 of the Reporter's transcript you ventured the statements, among other things, that on August 6, 1900, the elevation of well no. 3 was 1379.6 feet; and that on the next day, August 7, the combined discharge--1900-- of the Y Tunnel Division Box and Creek Division Box was 162.2, and that on February 20, 1909, the elevation of the water in well no. 3 was 1378.8, within .8 of a foot of the elevation on August 6, 1900, while the discharge of the Y Tunnel Division Box was only 35.35 inches, from which you deduce a conclusion that the difference between the water discharged on August 7, 1900, and February 21, 1909, was 130 inches, although as you claim the water elevations at well no. 3 were the same in 1909, or very close to it, as it had been in 1900, and the matter seemed to be of sufficient importance to impress the judge of the court, and the inquiry was made as to the difference in the flow of the water. Now I inquire of you if the elevation which you gave for August, 1900, of that well 3, was not a pumping elevation and that the elevation then was merely the bottom of the inverted cone caused by the pumping?

A I think there was some pumping in August 1900, and there was in--

Q Pumping late in August, 1900?

A I say there was some pumping in August, 1900. There is no

record that it was continuous, but there was pumping in the irrigating season.

Q. Don't you know that it was a very dry year and that the company was pumping all it could pump, and had only two wells in commission that season?

A. I presume that is probable; that they pumped all the water they could get out of that well. I would suppose they did, any way. And in February, 1909, the conditions in the basin were very similar. It was following a season of very extensive pumping.

Q. Do you mean to say that there had been any pumping for a months before February 21, 1909?

A. The pumps were not closed down till January-- there was pumping in 1909 up to about January 10 or 11. I have some-- urpmsion of pumping operations in this basin as late as January 10,,1909, and there had been pumping in December;~~fallxxi~~ there had been very heavy pumping during 1908. The water elevations in the records as tabulated show that the water level had been drawn down very extensively in that basin.

Q. Oh, well, do you mean to say that the elevation in mid winter of 1909 should be compared with the depression caused by the pumping in 1900 in midsummer when you compare the effect of the pumping?

A. I don't know of any reason why they should not be reasonably comparable, for this reason: The pumping operations in 1900 were very limited. There was just one well pumping out of the gravel beds at that point, the Haskell well at the extreme eastern end, and the total amount of water was very small that was taken out compared with the amount taken

in 1908.

Q Look at the tabulation on page 2469, water measurements of the Chinemeca Ben Hall District, given by you: Do you not find that on August 7, 1900, that that well no. 3 was pumped to the extent of 111.15 inches?

A I haven't the data before me, but I presume you are reading it correctly, and I know that there was more than that amount of water pumped at times from that well.

Q And you know the well was pumped with severity in the summer of 1900? That is, it was pumped extensively for the purpose of supplying the deficiency of the dry season?

A Yes, sir. I know it was pumped very much during the dry season.

Q Didn't well no. 3 begin to be pumped in April, 1900?

A My measurements in that tabulation small show the most of the measurements I made in that year, and my recollection is that they began pumping early in the season. You will note, Judge Britt, if you compare the elevations of the water in April with the elevations on August 6, that the pumping operations only dropped the plane about 22 feet or a little less than that.

Q Have you before you the table showing the pumping of water in 1908?

A I have.

Q What page does it occur on?

A 2477 and 2478.

Q That table shows that there was pumping of the well no. 5 in November, does it not, 1908?

A Yes, sir; that table shows that well no. 3 was pumped

from some time in June through the season up to November.

Q Did it pump all the time? Doesn't it show back on October 19 well no. 3 was closed down and that it was pumped only 9 days in October?

A On October 19 well no. 3 was pumping 03.0; inches; but on October 28 no. 3 was still pumping. No. 3 was closed down at two o'clock p. m. on October 19.

Q Wasn't it pumped only 9 days in October?

A Under "remarks" I find that no. 3 was pumped 9 days in October and 29 days in November.

Q And not at all in December?

A Not at all in December.

Q And only 10 days in January?

A And 10 days in January.

Q Do you think any accurate comparison of the actual elevation of the water plane on August 6, 1900, when the well had been pumped in the manner stated here, is to be made with the elevation taken on February 21, 1907?

A I think when you consider that in 1900 there was just that one well pumped, from the point where we were taking the well elevations north of the Rudy Tunnel-- well no. 3-- and when you compare the amount of water taken out that season, and the further fact that the taking out of that water-- assuming that the pumping began in April and continued through to the date of that elevation on August 6, , that there was only a little less than 22 feet of a lowering, when you compare that with the fact that in 1908 there were a number of wells pumping in large amounts,-- several times the amount in 1900-- I think the comparison is very fair, in that there has been a very much larger amount produced in 1908. I think the com-

parative conditions are equitable and reasonable both to you and to myself.

Q Let us see now. At page 2716 and 2717 don't you say that in 1900 there was 220 inches pumped for six months and that in 1908 there were but 74.7 annual inches?

A In 1900 my estimate is based--

Q Didn't you say those things?

A I haven't read what there is in the record there, but I know what I had in mind.

Q Look at it.

The Court: Q Did you intend to say those things?

A I intended to say just what I hoped to explain, and that is this: That in the year 1900 I had no knowledge of the exact length of time that the pumping operations took place and I assumed in all my estimates that it was six months, and so testified. I qualified that statement.

Mr. Britt: Q So there was a good deal more abstraction according to your statements in 1900 than there was in 1908, instead of there being many times more in 1900 than in 1908?

A Well, it would be half of that if they pumped the full six months. The pumping was drawn from two wells in 1900 and in 1908 it was five.

Q It began in June and continued till January, according to your statement.

A The facts are in the record. One is my estimate based on the best information I had in the year 1900, and the other is an actual record of the measurements made in 1908.

Q Your definition of an artesian well, as you have used the term "artesian" and repeated in the course of the testimony

here, is one in which water rises above the point where it is found in the course of boring the well. Is that substantially correct?

A Yes.

Q Without regard to whether it comes to the surface of the ground or not?

A Yes, sir; that is correct.

Q You stated several times that the 16th Street wells were not artesian. How were you present when any of those wells were bored?

A I was going back and forth during the time some of them were bored.

Q How do you know that in any of those wells the water at any of the strata of water-producing material encountered in sinking them did not rise above the point where it was intercepted?

A I have the same knowledge on those wells that I have on any others in that section. The well borer always pays attention to the action of the water that he penetrates into, and the well borers report that they got no rise of water in any of those wells.

Q How do you know?

A I didn't do the boring myself, and I can't swear that they did or not; but I do know that they are always looking for those things and they always report them.

Mr. McKinley: He wants to know how you knew them.

A They reported the log of the well.

Mr. Britt: Q Where are the logs of the wells?

A I haven't them in my possession.

The Court: Q Do you mean that they reported them in court or out of court?

A Reported them to the San Antonio Water Company. That is where I got my information.

Mr. Britt: Q Then your statement that the water didn't rise in those wells above the point where it was struck in sinking them is founded on reports of well borers said to have been given to the San Antonio Water Company which you have not yourself seen?

A I have seen some of those reports in times past.

Q Where are they?

A I don't know. I am not the custodian of the papers of the San Antonio Water Company, Judge Britt.

Q They are not in evidence here?

A I haven't read Mr. Loeke's testimony. If he didn't put them in I don't believe they are, for I haven't put them in.

Q Exhibit K, Mr. Trask, upon which you have assumed to represent the stratification of material penetrated by those wells, without any data yet produced in evidence to support the assumption, does, however, show that all of those wells penetrated certain strata of clay.

A That is the classification given by the well borer and I have so represented it on the profile.

Q The material which in the key in the margin of that map is called by you "impervious"?

A I made two classifications there. I took the records which the well borer gave me and made two classifications. In the logs of the wells there were a number of different

classifications, and I used my judgment as to how I should put them on this plat, and I made two classifications, one which I termed pervious and the other impervious.

Q Now, Mr. Irack, assuming that some one or more of those impervious strata extend horizontally or with an approximation to a horizontal extent, further to the south and into the material or connecting with some material under the Red Hill; if, now, the material between those strata is saturated porous pervious material, and those impervious strata which I have then hypothetically assumed may extend under the Red Hill or into the material below the Red soil on the surface which we call the Red Hill or hills here,-- now when those strata are perforated by a well going down there on the flanks of the Red Hill or the top of the Red Hill or in the Eudy Tunnel, wouldn't it cause artesian water in the well which thus perforated them?

A That is a very much involved question and does not contain all the elements necessary to make artesian water. You start out with one impervious stratum and later on in your question you imply that you have brought in another etc., and it makes a very complicated question which is not susceptible of a direct answer.

Q It seems to me entirely simple. However, I will add to it--

A Well, you have got enough there.

Q I will add to it the assumption that the perforation is at an elevation below that in which the water is found standing in those 16th Street wells.

A To give any reasonable answer to that necessitates a long discourse. In outlining the different points you put in

there you start out with one strata and then you have two strata. If we don't have that properly controlled you won't get artesian conditions.

Q You would have the conditions, would you not, which ordinarily give rise to artesian flow when the water bearing material is penetrated between two impervious strata?

A If you have two impervious strata, if your hypothetical question can be so construed, -- if you have two impervious strata with coarser material between, and those strata extended down to the Red Hill and right straight through it, and water at the Red Hill is pouring into that stratum and the stream has a grade to the south so that at the point where you tap into it in the Red Hill or some point above or below the Red Hills, penetrating the water at an elevation lower than the water in the wells at 16th Street, both the top and bottom strata are impervious, I would expect a rise in the water. In other words, you would have a condition making artesian water.

Q Now, Mr. Trask, there are certain deductions based on certain assumptions of figures which are of enough importance to desire a little further cross examination. On page 2716 of the record you assume for the purpose of certain deductions which you draw, after saying that in '97 you fail to find any record of pumped water of the San Antonio Water Company, that in '98 there were 25 inches pumped for a period of six months. From what data do you derive that inference?

A I can't give you the pages, but I think Mr. Frankish and Mr. Leeke have testified to the pumping of the 16th Street wells in '98, and my own recollection is that there was some

pumped from those wells, and it was estimated at 25 inches; but the exact time etc. are elements which I didn't have, and in that year, as I did in all the years up to 1904, I estimated the probable length of xxxx the irrigation season and took that as an average.

Q Based on the statement or testimony of Mr. Frankish?

A No; both Mr. Frankish and Mr. Leake testified on the subject of pumping of the 16th street wells; that year the San Antonio Water Company had gotten permission to do so

Q Do you remember your testimony in the McPherson case to the effect that they pumped there, when they pumped steadily, from 12 to 15 inches?

A I don't recollect my figures in the McPherson case, but I know I testified about the pumping of that well some, and I know that the amounts pumped varied at different times.

Q Let me call your attention to the testimony of Mr. Frankish as it is reported in the transcript here at page 2176, speaking of the delivery of water in 1894. He said :

"Q You began to deliver water under that contract in the fall of '94?

"A Yes, sir. About the middle of October, '94.

"Q And continued to deliver it how long that season?

"A That I couldn't say. Just as long as the dry weather continued. It probably stopped when the rains came.

"Q Do you know how much water was delivered steadily that season?

"A Into the pipe line of the water company, a little over 15 inches."

A That is for the year 1894, is it not?

Q Is that any of the data on which you base your assumption?

A I think he testified as to its length in regard to some other years; and if you read Mr. Locke's testimony, he has gone into the subject.

Q I will say that Mr. Frankish testified further:

"Q How do you arrive at that estimate? Did you measure it or have it measured?

"A We measured it from the well. We had the word of the zanjero at the other end that there was only 25 delivered."

There is, I agree, some confusion between the 15 inches which he said he pumped and 25 which he says the zanjero told him was delivered.

A If you will go through Mr. Locke's testimony and the additional testimony of Mr. Frankish, I think you will find a number of more measurements. I used that, and also my own knowledge of the pumping of the well during the several years it was pumped, and it resulted in a variable amount of water, depending on the pump they had in and how much they pumped the water down. From time to time they sunk the shaft deeper and lowered the pump, and I think they changed the size of the pump once or twice. I have aimed to get what seemed to be the best average for that pumping season from the facts that are in the record.

Q The next year, 1899, you made the assumption that there was 50 inches pumped for six months: Where did you get those figures?

A In 1899 that well no. 5 was pumping, according to the testimony of Mr. Locke, about an average of 50 inches, and No. 7 which was the Harroll well and as that the con-

sisted only of a shaft, averaged only about 20 inches during the irrigation season. And from those two wells I made up the average of 50 inches, which I used for 1899.

Q. Was that Haskell well pumped for the purpose of transporting the water before 1900? Wasn't whatever water was taken there solely for the irrigation of that land before 1900?

A. I don't know what date the pipe line was put in; I am sure prior to the building of the pipe line from Ontario the water was used on the land.

Q. You made no measurement of that water till February, 1900, did you?

A. There were no measurements made by me till the dates given in that table, which I think were in 1900.

Q. And in the fall and summer of 1899 the well was in the process of deepening, wasn't it?

A. Yes; beginning from the date of their purchase of the Haskell property they began deepening the well and pumping it.

Q. So that in 1899 there wasn't any water pumped from Haskell well at all and transported to Ontario, was there?

A. I have some notes here that may bear on that subject just a little. I made a survey of the pipe line from the Haskell wells westerly in July, 1899. The pipe line was put in during July and August and the water taken through it.

Q. The well was put in that year, wasn't it, after that time?

A. I am not sure just when they began work on the Haskell well. I don't remember the date when they purchased the

Haskell well, but it was either in the latter part of the year 1898 or the early part of the year 1899, and as soon as they got possession they began their efforts to sink that well and get water from it; and prior to the construction of this pipe line to which I have just referred, that water was used on the land adjacent; but after the pipe line was put in the water was taken through to the irrigators at Ontario. The stockholders of the San Antonio Water Company were suffering for water, and that was forced through at the earliest possible date.

Q On page 331 of the Reporter's transcript, I find this question in your examination:

"Q * * *Wells number 7 and 8 are known as the Haskell wells, are they not?

"A Yes, sir.

"Q When was well no. 8 sunk?

"A I will have to refer to my memorandum. I don't remember all the dates. Well no. 8, September, 1900.

"Q To what depth?

"A 514 feet.

"Q Well no. 7 was originally a dug well, wasn't it, when the San Antonio Water Company acquired it?

"A Yes, sir.

"Q That was lowered or drilled to a greater depth?

A Yes, sir.

"Q When was that drilling completed?

"A I think in December, 1899; near December, at least.

"Q To what depth?

"A 649 feet." This is not your examination, but Mr.

Leeke's

"Q Now, Mr. Leeke, I will inquire of you in the same way to state when these several wells were first pumped by the San Antonio Wat r Company?

"A The Haskell well, no. 7, the first well of the Haskell wells, I have no data on that subject, but it was pumped to some extent before we bored the well to this depth. And the spring after boring the well to this depth we put a centrifugal pump in and pumped it.

"Q Do you remember the time that centrifugal pump was placed in the well?

"A It was evidently the spring of 1900."

The well was not pumped before the drilling was completed, for the purpose of transporting through that pipe line? Mr. Leeke says it was completed in about December, 1899.

A All I can say is that I have very strong recollection of the San Antonio Water Company needing the water and their urging me to get that pipe line in; and I went to my note books and I found that the survey was begun in July, 1899, and I know that Mr. Bent was the contractor and I hurried him in that work, and he put in the pipe line as soon as possible. Now, I assume that the San Antonio Water Company turned the water into the pipe line as soon as possible, as soon as the pipe line was extended to the Haskell wells. The demands of the stockholders of the San Antonio Water Company were such that they would have brought the water into the pipe line at the earliest date possible. Mr. Leeke's testimony is that during that year they pumped, whenever they

1 up-- they were making improvements in the shaft and were
2 sinking it from 60-odd feet to about 100-- that they were
3 pumping water during that period, and at the end of the ir-
4 rigation season or along about mid-winter, the drillers took
5 possession and sunk the well down to the depth given in Mr.
6 Locke's testimony; and during the time the drillers were
7 at work there would be no water pumped out of the well; but
8 prior to that there was water taken out, and I remember it
9 well.
10 Q But theybwere nottaking out of any deep well?
11 A It was taken out of the Haskell well as it existed in
12 those days. It was a shaft they were pumping from in the
13 year 1899, and not a bored well.
14 Q It was used on the land where it was pumped, was it not?
15 A I have an idea that water taken out of there was used--
16 I recollect that it was used, at least, some of it,-- on the
17 lands prior to putting in the pipe line.
18 Q Do you think there is any such data here that justi-
19 fies you in saying that 20 inches was pumped from the Has-
20 kell well and taken over to Ontario for six months in 1899?
21 A Well, I presume the period was less than six months. It
22 must have been, because that pipe line couldn't have been
23 completed till some time in August. And while the winter
24 season following was comparatively dry, it would reduce
25 the irrigation season period to below six months, probably.
26 Q Now sir, where did you obtain the data for the assump-
27 tion that 220 inches was pumped for six months during the
28 season of 1900 from the San Antonio Water Company's 16th
29 Street wells?

A I can give you the facts right here: I took an average of 120 inches from ~~22~~ well no. ~~x~~ 7 and an average of 100 inches from well no. 3.

Q From the table found on page 2469?

A It was made up from deductions of measurements made during the year 1900.

Q I find your table at page 2469. Is that the table from which you made these deductions?

A Well, I used that in a measure for reference. I suppose you are referring to the tabulations for the year 1900.

Q Yes.

A I have that table before me now.

Q What other table did you use?

A I don't recollect using any other tables.

Q From the average of those tables given there you won't obtain 220 inches, will you?

A No. I think if you average all those measurements, that would be true. But in the irrigation season well no. 3 at times pumped more than 100 inches and at times less.

Q I see one measurement was only 39.51 .

A Yes, sir; that was in April. There was only that amount needed. They pumped the wells for the amount needed. And you will find someother measurements varying up to 111 inches.

Q But no such average as 120 inches?

A I didn't average them mathematically from those measurements. I used my own knowledge of the amount of water taken there in connection with these measurements.

Q Then you at times saw more water flowing from those wells than you ever measured?

A I thought I had measurements showing over 150 inches from the Haskell wells. I haven't been able to find those measurements and I didn't put them into the record. And I also made measurements of at least as high as 120 inches pumped from well no. 3 and I cannot find the record in my notes of that.

Q Then you have made a statement here of 220 inches for six months pumped that season from data of measurements and so on not in the record, that have not been testified to?

A No. The data here in the record shows that that well was pumped-- For instance, the Haskell well my measurements show that it was pumping February 11, and pumped right through till later in the season. My last measurement was October 9, but that was not the end of the season. Now in that estimate I have taken six months as the average pumping season. And if I take these figures and figure the number of days, which was more than six months, I am satisfied it will give more than 120 ~~xxxx~~ inches for six months, and the same would apply to well no. 3.

Q Did no. 3 pump right through from the time the pumping began, which seems to be April 3?

A April 3 was the first measurement I made; but that well was pumped for all it was worth that season, and so was the Haskell well.

Q Every day, was it?

A I won't say that, but whenever the machinery would keep the pump going. They had breakdowns, as they always had in those early years . The machinery was not as effective as

it is to-day, and they had breakdowns occasionally.

Q October 9 is th last measurement you gave here.

A Yes; my employment ceased a few days after that and I did no work for them for nearly two years.

Q You have no other record than this from which you base your deductions?

A These are the figures in the record, together with Mr. Leeke's statement at at the pumping that season. Mr. Leeke went into this in the early days of the history of this case and gave more or less testimony, which you will find in the record.

Q Yes. Some times more and sometimes less.

A Well, it was from more and less that I took these figures.

Q But to get your 220 average flow you have to proceed outside of any measurement that you yourself have or that Mr. Leeke has?

A I don't think so. I know that the rainfall records in this Court would show that the pumping season was late that year.

Q How late?

A I don't recollect the date.

Q I do. Now you assert that it was late, and the records will show it. Now tell us how late.

A The season would have extended up to some time in November, but I don't know the date without going to the exhibit which is in the case which will give the date of the heavy rainfall. The monthly rainfall in November, 1906, was 8.17, showing that there were heavy rains, and there was no irri-

gation after that. In 1900 the Hanwood record shows that the month of November recorded 8.17 inches of rainfall.

Q We will proceed to the next year, when you made the assumption that 282 inches were pumped for six months, in 1901. From what source do you obtain that inference?

A Well, from figures in the case. I think I referred to measurements of Mr. Hobby and possibly Mr. Sanders. I find that my notes show that I credited well 8 with pumping 71 inches, well no. 1 72.6 inches, and well no. 2 70.3 inches. andno.7 68 inches. I think I have read them all.

Q That makes how much altogether?

A 282.9 inches. Those figures were taken from dome of Mr. Sanders' and Mr. Hobby's measurements, which are in the record.

Q Do you know where they can be found?

A I can't tell you, but they are here. You called for them the other day and I gave them to you.

Q Well no. 1 you have got as pumped six months in that season--

A I think that possibly well no. 1 and well no. 2 are the old numbers, and I can't tell without looking at those reports. Possibly I can do that. Those numbers where it says no. 1, it should be no. 3 of our present numbers; and where it says no. 2, that is all right. Those numbers should read 8, 3 2 and 7.

Mr. Stevens: Q And no number 1 at all?

A The present no. 3 was no. 1 in those days. That is the old 16th Street well.

Q Well, then the two Haskell wells?

A Those were numbers 7 and 8.

Q And what else,

A There were four wells pumping that summer.

Q Well 2 and present well 3 then?

A Yes, si r.

Q Those wells were reported there by Sanders or Hobbs in October?

A Well, their certificates have been read into the record; there were several dates.

Q That is the report you have before you is it?

A Well, I have some memoranda taken from that, and other reports, all jumbled up together here.

Q Now, there is just one other matter and I shall have concluded: you several times mentioned the circumstance that a series of wells, one or two or more were in sympathy with each other: what do you mean by wells being in sympathy? I suppose the term is generally understood, but I would be glad to have your definition of it.

A Well, in the case of the 16th street wells, if the pumping plant of well 1 is started up, that within a few days there is an interference at well number 2; in other words if if close observation is kept on the water , the level of the water, in well number 2, it will be observed that the water-level in well number 2 is falling; after pumping a few days or two or three weeks, you have drawn the water down at well number 1, and the measurements show at well number 2, that the water level there has also dropped some, more or less, whatever it may be; and you stop that pumping

plant, and the water level again comes back; I mean that those facts and those observations constitute what I call a sympathy between the wells; that is the effect of the pumping in one extends to the other and is observable.

Q. And you conclude from that that the operations in one well affect the elevation at which the water stands in the other, under such circumstances?

A. Yes, sir; as regards the 16th street wells, in that gravel bed.

Q. And you mentioned the circumstance that the Haskell wells I think were in sympathy with the others, the other 16th street wells?

A. I said the measurements show that there is some sympathy but it takes a longer period to ascertain and observe it; they are farther removed from the other wells, and the Rubio well intervened, and there was very little pumping, and in many years no pumping at the Rubio well, and I would expect it would take quite a lengthy period for interference with the Haskell well elevations by pumping operations over at wells 1 to 5.

Q. Is there any reason other than the distance why it should take a longer time?

A. Well, I think they are in the same formation, and it is a question of distance, and the intervening material; that is a heterogeneous mass in there, and that would be a factor.

Just get down to the concrete facts: Take the table at page 82 of the record, showing the elevations of water in the string of 16th street wells belonging to the San Antonio Company, and illustrate if you please why some of

those were in sympathy so manifestly? The pumping operations appear at page 80. The elevations of water are at page 88, and the pumping operations at page 82.

A Well, it will take some little time to pick out some dates there when the pumping operations were also carried on at 7 and 8.

Q I ask you to point out some evidence in them table there illustrative of this sympathetic movement of water in the wells up and down; the pumping operations are shown at page 82 and the elevations of water in the wells at page 88; the tables I think were prepared by yourself; if you prefer you might have the printed page here.

A Well, I find it is very difficult to get the measurements on the same date here for the purpose of comparison; I know there are some, because I have in times past compared them, where there seemed to be a slight fall or rise of the water, depending upon the stopping or starting of ga pumps west at the Haskell wells.

Q Allow me to make a suggestion: Well number 3 began pumping, as appears at page 82, June 16, 1904.

A That is correct.

Q June 16, 1904?

A Yes, sir.

Q Now, turning over to page 88, you will notice that well number 1 was not then pumping, and did not begin pumping until September 20, 1904; that is a note at 82?

A Yes, sir; I have a copy of those notes here.

Q Now, then do you find, following June 16, 1904, some decline of the elevation of well number 1, while the pumping

of well number 3 was going on?

A I do; yes, sir; it is there.

Q Just point it out if you please.

A On June 18, the elevation of water in well number 1 was 1365.2; now there is no measurement given of well number 3 on that date, but it was pumping, and if you go down to July 2, you will find that the elevation in well number 1 had dropped down to 1364.7; and so on down to August 8, it dropped down to 1361.7; that shows sympathy between these wells.

Q To what extent during that time?

Mr McKinley: What year was that?

Mr Britt: That was in 1904.

A It shows a drop of 3.5 feet. I was not looking for comparisons as between those two wells; I was looking for data as between wells number 8 and some others

Q When on October 4, the well number 3 had declined to 1331.3, the measurement nearest to it in number 1 showed that it had declined to 1360.7 did it not?

A I didn't catch the well you compared it with; I see well number 3 for October 4.

Q It is about a month; the nearest measurement is the latter part of August, here.

A Number 1 was pumping after September 20, so there was no record shown there; and the last measurement on number 1 was August 27, when it was 1360.7; but that would hardly be comparable, as there was some little space of time inter vening.

Q As regards the two Haskell wells, they were very close

together are they not?

A Yes, sir.

Q And they sympathize very rapidly or very quickly, using the term sympathize in the sense you have stated here, the pumping of one very quickly lowers the elevation of the other?

A Yes, sir; it is a matter of a few hours; I don't know how many, for I have never had opportunity to check, but I do know the sympathy is very close there.

Q I want to call your attention to the relations of those Haskell wells and the pumping thereof, to the decline of water, and the elevation of water, in the so-called Hellman well number 2, at the head of the west branch of the Y tunnel, and I invite your attention to the circumstance that as appears by this tabulation the Haskell well number 8, at page [illegible], began pumping May 19, 1904: That is correct is it?

A May 19, that is correct; well number 8.

Q Now, at that time I ask your attention to the elevations of water at page 89 in the Haskell wells, on that date, and in what you have designated as well 8 which is the same as Hellman well number 2 isn't it?

A Yes, sir; it is the well in the west branch of the Y tunnel.

Q The head of the west branch of the Y tunnel?

A Yes, sir.

Q On May 19 the elevation of the two Haskell wells were respectively, 1347.1 and 1347.4: that is correct?

A Yes, sir.

Q And the elevation of Hellman well number 2, or 8 in

your table , at the head of the Y tunnel was 1345.2?

A Yes, sir.

Q Or there was a difference there of 1.8 feet, of the elevation of the well in the Y tunnel and the elevation of the water in the Haskell well number 7, and 2.2 feet in the Haskell well number 8?

A That is correct.

Q All right; now that was the day when the pumping in the Haskell well began?

A The same date.

Q Now, notice if you please that on the next measurement, May ~~25x~~ 26, the Haskell well number 7 was at an elevation of 1343.8; the Hellman well number 2 at 1343.6; only .2 of a foot difference between them; isn't that so?

A Yes, sir.

Q That was after pumping for one week, May 19 to May 26?

A Yes, sir.

Q Notice that on June 2, the next measurement, the elevation in the Haskell well was 1343.3 wasn't it?

A Yes, sir.

Q And the elevation in Hellman well number 2 was 1343.2?

A Yes, sir.

Q A difference of .1 of a foot?

A Yes, sir.

Q On June 11, it was the same; a difference of .1 of a foot; both had gone down however, the Haskell well being 1342.1 and the Hellman well 1342.2; and on June 18, you notice that the Haskell well was 1341.8 and the Hellman well was identically the same, 1341.8: Is that correct?

A Those figures are correct, Judge Britt.

Q June 27, 1341.1 and 1341.2 respectively?

A Yes, sir.

Q July 2, they were 1340.7 and 1340.9 respectively: Is that correct?

A Those arethe figures, Judge Britt.

Q On July 9, 1340.3 and 1340.1, respectively?

A Correct.

Q July 16, 1339.5 and 1339.8?

A Those are correct.

Q July 26, 1338.9 and 1338.1, a difference of .8 of a foot?

A Yes, sir.

Q July 30, 1338.3 and 1338.7 a difference of .4 of a foot?

A That is correct.

Q August 6, 1337.6 and 1338, a difference of .4 of a foot?

A That is right.

Q August 13, 1337 and 1337.4, still a difference of .4 of a foot. August 27, 1336.7 and 1336.1, still a difference of .4 of a foot; is that correct?

A Yes, sir.

Q September 3, 1335.3 and 1335.7 , a difference of .4 of a foot?

A That is correct.

Q October 4, 1333.1 and 1333.4 a difference of .3?

A That is correct.

Q October 8, 1332.7 and 1333.2, a difference of .5?

A That is correct.

Q October 15, 1332.4 and 1332.8; a difference of .4 of a foot; is that correct?

A That is correct.

Q October 29, 1331.6 and 1331.8, a difference of .2 of a foot?

A Yes, sir.

Q November 12, 1331.2 and 1331.3, a difference of only .1 of a foot?

A Yes, sir.

Q November 18, 1331. and 1331.3; a difference of .3 of a foot: is that correct?

A Yes, sir.

Q December 3, 1331.2 and 1330.2?

A Correct.

Q A difference of just an even foot?

A That is correct.

Q Now, the pumping of the Haskell well closed down November 5, didn't it, page 83?

A Yes, sir; November 5 the wells were closed down.

Q I would like you to inform as what is the distance between those Haskell wells and the Hellman well number 2, or the well at the head of the east branch of the Y tunnel?

A It is approximately 1125 feet.

Q Did you ever see a closer sympathy manifested between two wells at that distance than is shown by the Haskell well and the Hellman well number 2, at the head of the head of the west branch of the Y tunnel?

A I think I have, fully as close; there are some other factors coming in, in connection with that.

Here the Court takes a recess until 1:30 o'clock p.m.

-o-

Afternoon Session 1:30 p/m.

Cross Examination of F. E. TRASK, resumed.

Mr Britt, Q. Just before adjournment at noon, Mr Trask, in looking at your notes accompanying the tabulation at pages 82 and 83, I read the last note, closed down for season, 4 p.m. November 5, the pumping operations, and I did not observe that I had gotten over from the year 1904 to the year 1905, so that at the top of that column, page 83, it shows that the closing down for the season of 1904 was not November 5, but January 9, 1905?

A. Yes, sir; I observe that; I should have at the time noticed that; I knew the date was wrong, and I had thought of coming in and making the correction myself.

Q. So then, resuming the consideration of the comparative elevations of water, in the Haskell wells, and Hellman well number 2, the well at the head of the west branch of the Y tunnel, the last date that I mentioned was December 3, 1904, when the Haskell well number 7 was 1331.2 and the other well, or the Hellman well number 2 was 1330.2. On December 17, 1904, the Haskell well was 1330 and the Haskell well was exactly the same, 1330.

A. Correct.

Q. On December 24, the Haskell well was 1329.4 and the Hellman well was 1329.7 a difference of .3 of a foot?

A. Correct.

Q. Then the next measurement was January 7, when they were exactly the same, 1329.2 and 1329.2, January 7, 1905?

A. That is right.

Q. On the 9th of January the pumping shut down in the San

Antonio Water Company's wells, as appears from your note at page 83 did it not?

A Yes, sir.

Q And on the 11th of January of that year, the elevations of the Haskell wells are given, 1331.6 for number 7 and 1331.3 for number 8; and 1330 in Hellman well number 2?

A That is correct.

Q On the 17th of January, the elevations are for the Haskell wells, 1332.7 and 1332.8 for the Haskell wells, and 1331.3 for the Y tunnel well?

A That is correct.

Q On January 26, 1905, 1337.4 Haskell well number 7 and 1334.6 Haskell well number 8; and 1332.1 Well S or Hellman well number 2?

A Correct.

Q At that time there was more difference between the Haskell wells than there was between the Haskell well 8, and the well S was there not?

A There seems to have been; yes.

Q Now, without carrying these figures down, I call your attention to the circumstance, to continue the parallel, that at the beginning of pumping in 1904, which in the Haskell well was May 19, 1904, the difference in the elevation between those wells was this: 1.8 feet between the Hellman well number 2 or the well at the head of the west branch of the Y tunnel, and the Haskell well number 7; and 2.2 difference between the Y tunnel well, and the Haskell well number 8: That is correct isn't it?

A That is correct.

Q Now, the pumping of the Haskell well number 8 in 1905 began August 13, didn't it, look at page 83, about that date, is the statement in the note - began pumping number 8 about August 13, 1905.

A That is the statement there; yes, sir.

Q Now, then, looking at the elevations of these wells on page 93, the last date preceding the time when they began pumping when there was a measurement on all three wells, is July 29th is it not?

A Yes, sir.

Q At which time the Hellman well number 2, or well in the Y tunnel, west branch, head of it, was 1.9 feet lower than Haskell well 7 and 2 feet lower than Haskell well 8?

A That is correct.

Q Now, it appears from these tables that the elevation in the well at the head of the Y tunnel, was just about the same distance, before the beginning of pumping in 1905, that it was at the same period in 1904, very close to 2 feet. That is to say, the difference between the elevation of water in the Y tunnel well and the Haskell well: That is true isn't it?

A I observe that.

Q That is true isn't it? Just about the same?

A There was a little more difference in 1905.

Q It is so little that it can be measured in a very few tenths of a foot, isn't it?

A It is less than a foot difference.

Q I want you to observe whether or not, when the pumping began in 1905, there was not a steady decline in the Hell-

man well number 2, corresponding with the decline in the Haskell well: The first date is August 16, at which time occurs that measurement in the well number 8, to which I called your attention this morning, and which I still think is a mistake, because it does not coincide or correspond with any measurements preceding or following it; well number 7 was 1340.7; while the well 8 was 1330.8; and the well 5 was 1340.2; now, whatever may be said of the elevation of that well number 8, which began to be pumped a few days previously, yet the difference between well number 7 and the Hellman well number 2 was only .7 of a foot wasn't it?

A That is correct.

Q Then on September 8 there was only .2 of a foot difference?

A That is correct.

Q And on September 15, there was only .1 of a foot difference?

A You are right.

Q And on September 23, they were exactly the same?

A They were.

Q And on September 30 there was a difference of only .3 of a foot. That is correct?

A Yes, sir.

Q And on October 7, there was a difference of only .3 of a foot?

A .3.

Q On October 14 they were exactly the same weren't they?

A Yes, sir.

Q A steady decline in both wells, they having fallen then

on October 14 to 1334.1 in both wells.

A There has been a decline but an irregular decline.

Q The decline going right along. Without stopping to read them all on November 4 they were exactly the same, 1332.4 in both wells?

A Yes, sir.

Q No, there is a difference there; 1332.2 in the I tunnel on November 4, a difference of .2 of a foot. A Yes.

Q November 5, the pumping of the Haskell well ceased didn't it?

A Yes, sir.

Q On November 11, the Haskell wells stood , one of them 1.5 feet, and the other 1.6 feet above the Hellman well number 2?

A Yes, sir.

Q That is what you would naturally expect upon the cessation of pumping, that thereupon the Haskell wells would begin to rise more rapidly, wouldn't you?

A I would expect the Haskell well to rise when it ceased pumping.

Q Let us see, without reading all the figures: On December 2, the difference between the well in the I tunnel and the Haskell well number 7 was 1.8 feet wasn't it?

A Yes, sir.

Q And between it and the Haskell well number 8, it was 1.6 feet?

A Yes, sir.

Q On December 29, the wells stood respectively Haskell well number 7, 1339.4 and Haskell well number 8, 1339.4,

and the Hellman well at the head of the west branch of the Y tunnel 1337.9 or 1.5 feet difference between it and the other two?

A That is correct.

Q And there was just about the same amount of difference then, within a few tenths of a foot, as there was before the pumping had begun in August previous?

A There seems to have been.4 of a foot difference, that is relative difference.

Q Now, in 1906, there was no pumping at all of the Haskell wells?

A Not any.

Q And let me call your attention, taking a date at random, for example on May 19, 1906, on page 95, on that date the elevation of the well number 7, Haskell well number 7, was 1345.1 and of the Haskell well number 8, 1345.4; and of the well in the head of the west branch of the Y tunnel, 1343.5; is that correct?

A That is correct.

Q Or the difference between that well, and the Haskell well number 7 was 1.6 feet, and between that well and number 8 was 1.9 feet?

A That is correct.

Q Now, sir, can you find anywhere, comparing the elevations of water in these wells, which are denominated the 15th street wells, of the San Antonio Water Company, the string of them from 1 to 8, any two wells which correspond as closely, or at any rate more closely than the elevation of the Haskell wells and the well at the head of the

west branch of the Y tunnel, continued for such a period of time?

A I have not gone through to compare them, Judge Britt. But if you take wells 2 and 3 or 3 and 4 and compare them, you will find that there is a very close sympathy; if you take these wells and compare them, you will find there are some variations.

Q Now, just wait a moment; let me inquire of you whether the ascertainment of the elevation of the water in a well, such as these, is not taken by dropping down a tape line of some sort, with a weight attached to it, and determining bytthe feeling in the operator's hands or hand, when the weight has reached the water? Is that the way most of the elevations are taken?

A Why, that was approximately the method; a float was tied to the end of the tape line, and dropped to the water-surface, and the contact ascertained by the method of touch.

Q That mode of measurement may give rise to slight inaccuracies may it not?

A There is a personal equation there.

Q A mistake of a few tenths of a foot may be very easily made by such a method?

A Not by a careful observer, no; I tjink the error ought not to exceed a tenth; my experience indicates that.

Q Well, that is pretty close to an inch?

A A trifle more than an inch.

Q It is one and one-fifth inches isn't it?

A Well, an inch is .083 of a foot, and a tenth of an inch is .0083 of a foot.

Q Isn't a tenth of a foot equal to one and one-fifth inches?

A It may or may not be; I have not figured it out; I will compute it for you if you want me to; I don't think it figures just that, but it is approximately that.

Q Well, never mind; now, do you undertake to say that one making notes of measurements in various wells, where the water extends from 30 to 75 feet below the surface of the ground is not likely to make an error now and then of more than an inch and a fifth?

A Well, some people might make an error of more than that but I think a man who is experienced in making measurements would not make or should not make an error exceeding one-tenth of a foot; I have repeatedly checked on these wells, made independent measurements, and it is very seldom that my tape would read as much as one-tenth of a foot difference.

Q In answer to certain questions by the Court yesterday, touching the geological observations or conclusions rather, which you have stated herein testimony, you stated in substance that Mr Lindenhall , who as I understood you, made the report, "Water Supply Paper, 219" to the Interior Department, had drawn the same conclusions that you had drawn concerning the water manifestations, formations and so on, in the vicinity of the Red Hill; or you said among other things that you felt complimented that he drew the same conclusions which you do and have stated hereon the witness stand: Do I correctly state the substance of your testimony on that subject?

A I think in general terms, as regards the geology there,

you are correct; that was the idea I intended to convey.

Q And you stated that you were acquainted with this report, Water Supply Paper, number 219?

A I have read his chapter on the Red Hill.

Q I inquire of you if that report does not contain the following statement, concerning these precise waters at the Cucamonga Springs, and adjacent to the Red Hill:

"The original cienega waters and the pumped waters which now take their place seem certainly to be derived both from the earlier and later alluvium. The ultimate origin of the water in each of these formations is the same - namely, the rainfall upon the San Gabriel range, north of the Red Hills - but the courses which they follow to the point of development, or at which they originally issued, are probably essentially different. Nevertheless, waters from both sources were no doubt mingled in the old springs and are probably now mingled in some of the wells.

It is to be remembered that the Red Hills as a partially buried topographical feature act as a barrier against which the modern stream wash has been piled. The waters which are percolating southward through this wash reach the barrier, rise behind it, and flow over it as springs, except where they are taken out by development before they reach the surface."

Was that language a part of the report with which you were acquainted?

A I think I have read the same language there.

Q I inquire also if this report to which you refer, contains

also the following language:

"This buried earlier alluvium affects the occurrence of underground waters in two ways. In the first place where the hills of the older concealed topography lie athwart a line of underground circulation through the later alluvium, they serve as a dike or underground dam, forcing the waters which are percolating through the overlying gravels to or near the surface, where they flow out in springs or are easily developed by wells."

Do you recall that such language was used in this report?

A I presume I have read that same language.

Q Also, further:

"If this evidence of the temperature is accepted as a safe basis for a division of the waters, the Haskell wells (No. 79, Cucamonga quadrangle) and those farther east fall into the group which derives its waters from the Red Hills formation, the older alluvium; while those to the west derive their waters from the overlying modern wash."

Do you recall that statement?

A I have read that; I also recognize the fact that I have some information that Mr Mendenhall did not have; if he had it he probably would not have drawn that conclusion.

Q Do you agree with the conclusions there stated in Mr Mendenhall's report?

A In part.

Q Do you claim that those statements of Mr Mendenhall's in his report, on the subject to which you refer, are prac-

tically the conclusions which you have stated here?

A I think they are in part; there are, however, some reasons which Mr Sendenhall did not have, and had he had the information and facts that I had in my possession, he would have written some of those paragraphs a little differently, no doubt; he is a fair minded man, and had he known those facts he would have ~~xxxl~~ classed the Haskell well with the 16th street wells.

REDIRECT EXAMINATION.

Mr McKinley, Q You referred during your cross examination to fires which had occurred on the watershed of the Cucamonga Canyon, and denuded the watershed: what effect did the denuding of that watershed have upon the supply of water upon plaintiff's land?

A It had this effect: that the burning off of the brush in that Cucamonga watershed removed the cover, and a good part of the resistance that was offered to the rapid runoff of storm waters, and the result was that there was a very rapid discharge of the rainfall from the mountainous part of that watershed out into the canyon, and out of the canyon and a greater percentage of that water ran off as flood water out over the debris cone of the canyon, and a smaller percent was left to run during the summer months to feed the upper edge of the debris cone, that part which supplies the older alluviums, and without artificial interference since that fire, a good percentage of the flood waters would have passed 16th street and gotten out of the basin, and benefitted none of the consumers of water in that watershed; and the water would have run off with much greater rapidity than before

the burning off of the shed; in other words the burning of the shed has been very destructive of the holding property of the watershed as regards the holding of rain water and control of it.

Q Referring to the steel pipe which you mentioned, which was constructed by Stowell, carrying water to Upland, from what point was that water carried?

A That water was carried from the Dadie tunnel to Upland a distance of two miles or more.

Q When was it that pipe was put in and used there?

A I think it was in 1898; 1897 or 1898.

Q Can you state what its capacity was?

A I made a computation of its capacity, and my computation showed it to be 52.5 inches.

Q Did you ever make any observation of the amount of water that was being carried and delivered over there?

A Only in this way: I know that they turned out of it at the lower end to my clients, the San Antonio Water Company, 30 inches, and there was much more water in the pipe line.

Q Mr Haskell inquired of you about a profile, showing a gradient which was put up here, and you started to make an explanation of what the effect of that gradient was, and was confined simply to what the profile showed: Will you state upon what that profile is based, and what the facts indicate with reference to the motion of the water at that point? Referring to Intervenor's Exhibit number 1; No, it was Defendants' Exhibit E that he asked you about.

A Mr Haskell called my attention to each of these exhi-

bits upon the same subject. Defendants' exhibit K he called my attention to, and called my attention to the break in the lines at well 7 and 8 and at well L, more particularly wells 7 and 8, the Haskell wells, and asked me regarding whether they showed the dip of the water plane; as regards those lines I wish to say that a line does not show the direction that a water-plane or any other plane dips; necessarily it takes more than two points to ascertain the dip of it; but that profile was drawn to represent the elevation of water in different wells at different dates through the gravel basin in which are located the San Antonio Water Company wells 1 to 8 inclusive; and I carried it easterly, showing the location of well L, which is the upper well in the Lone Star tunnel; also well 7 which is still easterly, and a short distance above the intersection of Hollman Avenue and Haze Line; and still further easterly the Sunset wells, showing on two different dates the elevation of water there; and the break in the grade line at the Haskell wells, that is the line joining the elevation of the water in the wells at different points, demonstrates in these later years that somewhere near the Haskell well, or some point between the Haskell well and the Lone Star well,, which on this diagram is called well L, there is a close formation which interferes with the movement of the waters in the gravel basin in which the Haskell wells and the wells westerly are located, and that the rise and fall of water, or in other words the level of the water, at those different wells is not constant or regular, and that they each depend on the drafts within their own areas. It will be noted in

the lower line, of date May, 1904, that there is a sharp break in the line at the Haskell wells, and that indicates that the water in the wells of the Lone Star and the Sunset wells was considerably lower, whereas, when you look at the elevation of the water in the wells west of the Haskell wells where this break occurs, it is apparently on a level line; as a matter of fact the water-plane if developed would probably dip to the south or southwest; but that can only be developed by a large number of wells, and platted in the shape of curves.

The Court, Q. I suppose the term water-plane is really a misnomer?

A. Yes, sir; it means the surface of the saturated mass.

Q. Ordinarily it would be spheroidal rather than a flat surface?

A. Yes, sir; it would be an irregular surface; paraboloid.

Q. By Mr McKinley: , Where does the break occur?

A. Near the Haskell wells, or at the Haskell wells as shown on the map, but we have no points any further on, to determine just where it would be; but the characteristics of the country, and the geological formation shows that there is a change in the formation in which the wells are located, that is the Haskell wells, and the wells east; and this dike or dam serves the purpose of making a large difference in the water elevations of the different wells, and checks the movement of waters from one source to the other, or one formation to the other. And the same is true of Intervenor's Exhibit number 1, shown me by Mr Haskell at the same time; Mr Haskell presented Intervenor's Exhibit

number 1 to me, and asked me some questions about the lines and the grades as applied to his exhibit; and the same holds true as regards my explanation of this exhibit: that this simply illustrated the change of elevation of water in the wells, and the lines drawn between them do not represent planes but simply the difference in level only and pronouncedly show that there is an intervening medium which controls the movement of waters between the Laskell wells and the wells east.

Q You discussed the matter of some wells on the west side and below the line of the Red Hill, and subsequently referred to wells on the east side as being at the winery, and one near the winery: what if anything do you think are the indications with regard to the outlet of the water, the conclusions to be deduced as to the outlet of the water, from these wells, taking into consideration the wells on the east side also?

A The conclusion to be drawn is that the spillway from above the Red Hills is around the westernmost side and that the Red Hills act as a barrier to the waters in the gravels lying to the north of them.

Q What bearing do those wells on the east side have on that conclusion? That is I mean the wells below?

A There is a shaft east of the bridge, and south of the main road, near the winery, which has a depth of between 180 and 190 feet, we did have before it reached water, ; and that shows that the coarse silts and gravels of the recent period overlie the Red Hill formation at that point, and there was nothing to support the water there, and that

the waters are waters that spill around the Red Hill; in other words they emphasize the fact of a very sharp fold in the Red Hill, and of its acting as a dam.

Q. You were asked about certain testimony that you gave in the McPherson case; in connection with that I desire to refer you to some other testimony, showing the context and the explanation of the witness, page 1326, lines 7 to 28, and I will ask you if you testified as follows in that case:

"Q. I wish you would turn to the profile map. I will ask you whether in your opinion the same or different strata of water bearing gravel feed the wells and ciénega D as compared with the Stowell well, upon Defendant's Exhibit 13?

"A. The conditions there would indicate that the immediate sources of those supplies are separate. My opinion of the formation is that it is broken up and that the different wells are fed practically from different beds of gravel. That is, that the Red Hill is an older geological period in my estimation, and that it has been thrown up there, and that throwing up has either developed very sharp folds or fractures; I think it suggests a fracture, that is, a slipping by of the stratification. In that case strata of clay and gravel may have slipped by so that the clay of one stratum might close up on the gravel strata of another section close to it. If that is not the case, it is an extreme folding, and that would introduce the condition by which wells close to each other might be fed from gravel beds

"which were practically controlled or supplied from independent or nearly independent conditions. The level of the water at the different points there in my estimation demonstrates that to be the condition existing."

Was that also your testimony?

Mr Britt: We object to the question as irrelevant, immaterial and incompetent; this is not part of the matter which was read to the witness on cross examination; and it is not competent for this to go in now, merely to show that he made statements at that time, which are claimed to be consistent with statements which he makes now; and we desire to add further to the objection, that it is hearsay, the testimony now sought to be adduced from the witness.

Mr McKinley:. We claim this is explanatory of the matter he was asked about on cross examination; it was testimony given at the same trial and upon the same occasion.

The Court: The witness was asked in regard to certain matters on cross examination, that he testified to in the McPherson case; if this is explanatory of that or relates to it it is proper that it should go in. I cannot say for certain at this time whether it does or not, but I will let the testimony go in. Objection overruled.

Mr Britt: Exception.

A I did so testify.

Q Now, referring to page 1345, beginning with line 4, I will ask you if you testified as follows in the McPherson case; it is just after something that was read to you: Did you testify as follows:

"Q. And then practically that the 220-acre tract - that the lands of the Cucamonga Fruit Land Company continuing down to the county road below were practically of the same character, extending on down?

A. I was of the opinion that the formation lying above the dike was practically of the same character, but the dike itself I considered of a different character and of a different geological period. That was the principal element in finding that gravel bed saturated.

Q. Where did you locate the dike?

A. I call those red hills the projection of the dike above the surface.

Q. The large red hill and the small red hill both?

A. Yes, sir.

Q. Below the surface what is there, in your opinion, in the way of a dike?

A. We don't know the extent or character of that dike; but in my opinion, judging from what I have seen east or west there, I think the dike is co-extensive with the mountain formation.

Q. Where do you locate the dike in this case extending down under the red hill?

A. I think the Red Hill formation in itself constitutes a dike. It acts as a check for the water which falls on the mountains and on the slopes lying north of the Red Hills; while in all points it does not cut off the flow of percolating water, yet it so restricts that flow so as to hold in saturation the water in the gravel beds.

"Q And the water is greatly increased at the point where it is dammed up by the dike, isn't it?

A I mean there is a much greater quantity up there than anywhere else in the plane of saturation. That saturation seems to be the same amount of water wherever it is saturated completely. The volume cannot vary much near that dike material from what it is near the mountains. Saturated material we know by experience means from 25 to 35 percent. Recent experience shows that all kinds of material have exceeding 30 percent.

Q That is, if it is full it is full?

The water is held by the dike like any other dam?

A Approximately.

Q And from that dike it will rise - against that dike it will rise to the level of its source?

A Not necessarily.

Q Why not?

A Because the material through which it passes will restrict that water plane and control it.

Q Your idea is that that dike extends several hundred feet below the surface?

A I should think that dike extended down and connected.

Q And it is marked on the surface by indications which are shown by the projections?

A It is marked on the surface by that portion of the dike known as the Red Hills."

Did you so testify?

Mr Britt: To which I make the same objection as to the matter read from page 1326 of the transcript.

The Court: Overruled.

Mr Britt: Exception.

Mr Stevens: Read the rest of it so as to save us putting it in.

Mr McKinley: Certainly:

"Q You don't know what breaks there are in the dikes below the surface?

A I don't know. There may be breaks in that dike and undoubtedly are.

Q Suppose there was a break in the dike; what would be the result with reference to the water in the saturated plane?

A Through that break a certain percentage would find its way to the detritus below the dike. The same would be true of the low places in the dike. We might liken it to the flood outlet of a reservoir. There would be a point where there is a slop-over.

Q If there is pervious material in that dike the water will pass through that pervious material and the break will act like the opening of a gate?

A Water passes through that the same as it does through all gravel, but it passes slowly.

Q But if there is a convenient break it will pass more rapidly? Wouldn't it increase in its velocity?

A It depends on the class of material through which it flows. If that break is filled up with close fine material the velocity is the same".

You so testified?

A I did.

Q Now, next at line 9, page 1299: Did you testify at the trial of the McPherson case as follows:

"Q How lately have you observed the cienegas?

A I have been on them once or twice during the past month.

Q What is the relative appearance as to dryness between the cienegas on the east side and the west side, as compared with their general appearance during the time that you have known the cienegas?

A They seem very dry now as compared with what they were the first time I saw them.

Q And what is their relative appearance to each other?

A I should say that my opinion is that they both dried up practically on the same lines and the same ratio. They gave me that appearance after traveling over them. I should say that some parts of the east cienega have had the appearance of having dried out more; in general terms I would say that they kept pace one with the other".

Did you so testify?

Mr Britt: Objected to as irrelevant, immaterial and incompetent and not necessary or proper for the explanation of any extracts of the witness's testimony in that trial, introduced by the plaintiffs or intervenors in the present case.

The Court: Overruled.

Mr Britt: Exception.

A I did.

Q I will read on further and make it a part of the same question:

"Q What is your observation as to the effect of rainfall

"on the appearance of those cienegas?

A My observation is that the flow of the cienegas oscillates in quantity back and forth, bearing very close relation to the rainfall of the different years.

Q Now, from your knowledge of the cienegas and from your knowledge of the rainfall, during the time that you have known the country, how would you expect the appearance of the cienegas now to compare with the appearance when you first saw them as to the amount of water in them?

A Their present condition bears out what I would expect to find. My first knowledge of them was obtained from years of heavy rainfall, and the past two years have been very light rainfall, and it corresponds closely to what I would expect to find.

Q Taking the cienegas as a whole, what in your opinion is the cause of their present condition of dryness? That is, their present condition, whatever it may be?

A I should say the lack of rainfall reduced them to their present condition.

Q Take that cienega D; you have spoken of it in a condition of dryness. I wish you would tell us just what its condition is at the present time.

A In my tramping over cienega D I found that it had been trenched, and ofcourse, that could have a tendency to draw the water down from the sources.

Q Is it dry now in all parts of it?

A No, there are places where it is wet in the center of it.

"Q What would you expect as to the effect of the trenching that you saw?

A The trenching has the result of reducing the water level. That is, of drawing the water out of the vegetable mould and surface debris, and leading it away."

Mr Britt: May it be understood that the same objection that was made a few moments ago, the last objection made, applies to all this line of testimony in each instance, and that it is deemed to be admitted over the objection and exception of the plaintiffs?

Mr McKinley: We stipulate to that.

Q Did you give the testimony which I just read?

A I did.

Q At the time of giving that testimony in February, 1900, and at the time of the making of the map Exhibit 12, what was the condition of the cienegas on the east and west side?

A They had been very much depleted and dried out by tunnels and cuts, so that there was only a small area that was cienega land.

Q What did the map of those cienegas as prepared by you, represent as to their condition?

A The representation on the map which plaintiffs have introduced in part here, was of cienegas or cienega markings that were found on another map; they were simply copied, in so far as the cienega appearance on the map placed here in court is concerned, it simply represented correctly as near as possible, the copying of some markings, from a map furnished by Mr Stowell, and not from the conditions on the ground at that date.

Q. I believe you informed me you had some additional well elevations, measurements in Cucamonga well number 8; if you will give those if you please.

A. I have the following well elevations that I picked out of my note book:

| Date | Well No. 3 | Well No. 9 |
|---|---|---|
| May 18, 1907 | 1368.9 | 1326.3 |
| June 1, 1907 | 1369.0 | 1324.2 |
| June 14, 1907 | 1369.6 | 1325.1 |
| June 28 1907 | 1370.0 | 1324.6 |
| July 11, 1907 | 1370.4 | 1324.3 |
| July 30, 1907 | 1371.5 | 1325.1 |
| August 17, 1907 | 1372.0 | 1324.8 |
| August3o, 1907 | 1372.o | 1316.5 |
| Jan 9,1908 | 1376.2 | 1330.1 |

Q. Then in connection with that the discharge of the Radie tunnel:

| | | |
|---|---|---|
| Jan 11, 1907 | 247.95 | inches |
| Mar 31, 1907 | 70.56 | " |
| June 28, 1907 | 258.52 | " |
| July 11, 1907 | 253.56 | " |

I have a few additional measurements which I have computed; some of these may be duplicates; I am not sure; they are from Cucamonga Weir number 8, which represents the Big Springs discharge as follows: These are all taken in the year

1906.

| Date | Hour | Inches |
|---|---|---|
| Feb 1 | 12:25 P.M. | 8.60 |
| Feb 14 | 2:45 P.M. | 9.23 |
| Feb 24 | 1:00 P.M. | 9.62 |
| Mar 7 | 3:00 P.M. | 10.02 |
| Apr 16 | 2:00 P.M. | 13.21 |
| May 10 | 12:10 P.M. | 12.35 |
| June 16 | 12:10 P.M. | 11.54 |
| June 30 | 1:40 P.M. | 12.93 |
| July 27 | 1:45 P.M. | 10.69 |
| Aug 16 | 12:15 P.M. | 11.25 |
| Sept 1 | 11:40 A.M. | 12:25 |
| Sept 29 | 1:35 P.M. | 10.42 |
| Oct 26 | 1:30 P.M. | 10.80 |
| Nov 9 | 1:40 P.M. | 11.60 |

Q You were asked by Mr Waters as to wells which you referred to as standing at a different height, The Stowell Wells, which were close together, as to whether you knew as to whether they were in different strata or not? Would the fact that they were in different strata have any bearing as one of the factors in reaching the conclusion which you did that the waters were unconnected?

A Yes, if they tapped into different strata and not into the same strata, they would have different control.

Q And that fact would account for their difference in level

A It would and could.

Q And what bearing would it have, in determining whether waters of one affected the other?

A Well, it would have the effect of determining or indicating that there was comparatively impervious material between the two, and that there was very little lateral movement of one water, if any, toward the other, or between the two different channels into which the two different wells might tap; in other words it would show an inter-dependence as between different water-carrying channels in that Red Hill formation.

Q From your familiarity with the lands of the plaintiff on the east side, have you formed an opinion as to whether additional waters can be obtained on that side by wells and pumping?

A I have.

Q What is your opinion in regard to that?

Mr Britt: Objected to as irrelevant and immaterial. We maintain that the defendants here cannot excuse the

drying up of the wells, springs and cienegas on plaintiff's land, by showing that the plaintiffs could bore wells and obtain a sufficiency of water for their purposes.

The Court: The evidence will be admitted rather for the purpose of illustrating the physical conditions that exist in and about there, than as bearing upon that proposition of law. The objection is overruled.

Mr Britt: Exception.

A My opinion is that they can get water on their lands on the east side, additional to what they are getting now.

Q At what depths?

A At varying depths, depending on the sources or points they go after it or seek it: take section 4 and the east part of section 3 - take sections 4 and 3 without qualification - wells put down on those sections have produced water: the Old Settlers' well in section 3; wells in the 30-acre tract; and the same formation exists outside of the 30 acre tract in section 2, the lands of the Vineyard Company, and of the Cucamonga Land and Irrigation Company, and lands of the Cucamonga Water Company; wells put down on those lands will produce water in my judgment, much of which will pass by and do no one any good unless it is pumped out,- no one in that vicinity,- it will go down to supply the people who are pumping so much water out a few miles below.

Q And with regard to the depth: you say varying depths: varying with what? At what depths for commercial production?

A Within reasonable depths for economic pumping; the Old Settlers' well, which is in section 3, demonstrates that the water is quite close to the surface, and that there is a

good supply, and other wells in that vicinity could be put into the Red Hill formation, and in my judgment produce water at commercial figures, which in my judgment would make it available and cheap water, and the same would apply to the western part of section 3, and some parts of section 4, south of the Y tunnel and east of the Y tunnel.

Mr Britt: We move that the statement of the witness commencing with what he said about the Old Settlers' well be stricken out as not responsive to the question, all that portion of the answer which relates to the facility with which water may be pumped.

The Court: That part will be stricken out, but I will ask you to segregate it, Judge Britt.

Mr. Britt: Very well; in any event we claim the entire subject matter is irrelevant and immaterial.

Mr McKinley: While some portions of this particular answer may not have been responsive to the question, we say this line of testimony is admissible under the pleadings, the action being one for injunction and not an action to quiet title.

(Discussion as to effect of pleadings.)

The Court: My disposition has been in this case, as I have heretofore stated, to admit evidence subject to a motion to strike out. Your objection, Judge Britt, may be considered in to all this line of evidence, the objection overruled subject to a motion to strike out, and an exception taken.

Mr. McKinley: Q State more particularly at what depth in your opinion water can beprocured.

A They can be procured at depths varying from 60 feet up to 100 feet.

The Court: What section are you referring to? The Lone Star section?

A I am referring to the section or area near the Y Tunnel,- east of the Y Tunnel, towards the 35-acre tract and in the land east of Hellman Avenue near the Sunset wells.

Q You are not speaking of the territory as far west as the old Cucamonga stream springs?

A I have referred especially in my mind to that land that was south of the Y Tunnel and east of the Y Tunnel in sections 4 and 3.

Mr. McKinley: Q And what do you say as to the necessary depth of those wells as compared with the Lone Star wells from those wells as disclosed by the record?

A I should say their depths would be about the same.

Q What is your opinion as to obtaining considerable quantities of water there?

A I believe they can obtain sufficient quantities of water in each of those wells.

Q Have you examined the wells in the Y Tunnel?

A One of them. I have kept elevation measurements on one of them, and I have kept measurements at times at the mouth of the Y Tunnel showing the run-off from that source.

Q What is your opinion of the feasibility of pumping water from that well?

A I think they can obtain water out of that well.

Mr. Britt: Q That is at the head of the west branch of the Y Tunnel?

A I understood the west branch.

Mr. McKinley: Q In what sort of quantities?

A I would expect they could pump 30, 40, or 50 inches, or possibly more.

Q You are only familiar with one of those wells in the Y Tunnel?

A The well in the east branch of the Y Tunnel I know nothing about.

Q Mr. Trask, your attention was called by Judge Britt to certain comparative elevations of the Haskell well and Well #3 in the tabulation there: what have you to say as to the conclusion to be drawn from that comparison?

A I have this to say: that while some of those measurements show a considerable degree of sympathy, there are many of them that do not-- some of them that do not; and that there are other elements which may account and do account for the variations and fluctuations in the Hellman Well other than the pumping operations at Well #8..

Q State whether those figures show a sympathy between the wells?

A I am referring to page 89 of the transcript, at the date of May 26, and the difference in level was 1.8 of a foot-- no, that was May 19 . It was .2 on that date. It was May 19 instead of May 26 when it was 1.8. And between that date and the 26th they dropped so that on the 26th there was a difference of .2 of a foot between Wells #7 and #8. On July 2 there was a difference in elevation of .2, the well #8 being

.2 of a foot higher than Well #7. The drop in seven days, namely to July 9, in Well #8 was .8 of a foot while the drop in Well #7 was only .4 of a foot. During the latter part of June at one time xxxxx-- on July 2-- xxxxx Well #8 was .2 of a foot higher than Well #7, a week later Well #7 was .2 of a foot higher than Well #8. And a week later, on July 16, Well #8 was .3 of a foot higher, showing that they alternated in their relative positions. Then again, November 18, Well #7 had an elevation of 1331 feet; on December 3 that well had an elevation of 1331.2, or a raise of .2 of a foot; while Well #8 on November 18 had an elevation of 1331.3 and on December 3 an elevation of 1330.2, showing x 1.1 feet drop while #7 was rising. Those are some of the differences.

Q Domyou reach the conclusion that they are in sympathy or not?

A I reach the conclusion that in some places there is an apparent sympathy; but the history of those wells and the character of them must be studied from the standpoint of all the surroundings and not from the pumping operations of the San Antonio Water Company; and from the other facts, exhibits etc. that have gone into the record I draw the conclusion that there are other causes which have influenced the rise and fall of the Hellman Well other than the pumping of Wells #7 and #8.

Q I will ask you whether you have ever observed that when the Haskell well is not pumping the difference between the elevation of the Haskell Well and the Well #8 is about 2 feet, while when the Haskell Well is pumping the elevation is about the same, and whether that can be attributed to the fact that

the Haskell well is pulled down by pumping and the other well not affected?

Mr. Britt: Objected to as leading.

The Court: It is, but the damage is done. Plaintiffs except.

A I have noticed that it pulls down the well right close to the pump.

Q Is that an indication of sympathy or not?

A It is an indication of sympathy between the two Haskell wells and non-sympathy between the Haskell wells and the Well #5.

Q What other factors are there if any that indicate in your opinion that there is or is not sympathy between the two wells?

A The factors shown in defendants' exhibit O.

Q What are they?

A In considering the action and eccentricities of the different wells, we have to take into account all the factors in the field where the wells are, not only for one season but for many of them. Defendants' exhibit which is made up of facts exhibited upon plaintiffs' exhibit 78--

Mr. Waters: May it please your Honor, I object to this as being repetition. It has all been gone into on direct examination of the witness. The question asked by Judge Britt was merely legitimate cross examination and has not brought out any new subject matter at all. And if we are going to repeat and repeat and repeat we never will get through, and I say this is a clear repetition. He has given all those facts before.

Mr. McKinley: New matter was brought out with reference to

these particular comparisons, and I am explaining them, and I shall be through in a few minutes.

The Court: I guess you had better go ahead.

A ---shows the run-off from the Y Tunnel and the run-off from the Y Tunnel is a discharge in great part, if not wholly, of the water from this well referred to as Well S, as the well is cut into the Y Tunnel and cannot rise above the level. But whenever the pressure on its water increases so as to bring it to the surface or above it, it discharges into the tunnel. Therefore, this data on this exhibit will have to be considered as showing the conditions at the well.

In this season,-- the season of 1908 -- the Y Tunnel discharge began on or about the 26th of February or possibly a few days earlier. On February 23rd there was no discharge from the Y Tunnel. And it continued up to about May 10, when it reached its maximum discharge. About May 10 the Cucamonga Water Company began to pump the wells in the Lone Star Tunnel and at once the discharge from the Y Tunnel dwindled down. During that time the San Antonio Water Company was doing no pumping. Here is a clean case of interference with the discharge of that well. In the records there is no accurate statement of the time when the Cucamonga Water Company began pumping in the year 1904, so we cannot consider these tabulations with all the records in the case. So to compare with this rise and fall of Well S, we would have to have additional information which would have to show a sympathy between that well and the Cucamonga pumping operations in the Lone Star Tunnels.

Q Have you any measurements or elevations of Well S

that you have not put in? Measurements in September, 1905? Have you any such measurements?

A I think all the measurements I have must be in the record. In November and December I have some records of measurements, but they are in the record.

Q In the testimony cited here in the McPherson case you made reference to the low places in the Red Hill dike: What low places do you refer to?

A I refer to the low places west of the Red Hills and around there which I referred to in my talk about the waters moving that way out of the basin.

Q Moving which way?

A I have designated those low places as the places through which the water was moving.

Q Which way did they move?

A Westerly and southerly.

Mr. Stevens: Q You mean the waters of the old alluvium?

A The waters of the gravel beds north of the Red Hill.

Mr. McKinley: Q Did you refer to any place where the waters moved in the old alluvium?

A No; the waters in the old alluvium that I referred to are unknown except so far as they come to the surface in cienegas or through the wells in the tunnel.

Q Any other explanation that you desire to make of that testimony in the McPherson case? Has it been made clear by further events?

A I desire to say in relation to the McPherson testimony which was introduced by plaintiffs in relation to the subject of the separations of the point where the waters of the

older alluviums and the recent alluviums or gravels were separated,-- in that case there was no effort made to determine at what point the supply of water was common to both of those geological formations. It was not necessary. And there were very few factors from which we could determine that. And since that trial there have been many facts developed and much information secured from the boring of wells and the interference of wells and the action of wells one upon another, and the point of common supply as developed in this case to be near the foot hills, whereas in the other case it was not specified, and I made a reference to it by virtue of showing that at that time it was not necessary to go into that part of the case and we didn't do so, and that we spoke of the gravels in an indefinite way and not in a particular ways describing any particular location which they were drawing from. Another point I wish to refer to in connection with the geology which has been referred to at the time Judge Goodcell was questioning me, and that is, the character of the fold of upraise. In that first testimony in the McPherson case I spoke of more than one possible cause of the uplift; that it was possibly volcanic and possibly being broken up. But I also in one paragraph in the data read into the record today by Judge Ofinly, stated that I thought it was a sharp folding. Subsequent events have demonstrated sufficiently to me and my judgment would be that it was a sharp folding rather than a breaking up.

Q What in your opinion is the result of intercommunication of water in the pike between the ancient and recent alluvium when the later alluvium covers the older?

A In a sense, that old material is saturated. There is a contact. But as regards the movement of waters from one formation to the other there is no interchange. The contact is a theoretical one rather than an actual one as far as interchange of water is concerned. I consider the silts in the formation are amply close to retain the water and direct it.

Q When Mr. Haskell examined you he asked the following question and you answered in the following way, and I desire to ask the meaning of it:

"Q The Cucamonga channel as it passes through the Red Hill is filled with boulders and debris, isit not?

"A On the surface.

"Q To an unknown depth?

"A It is filled on the surface. I haven't delved into it to find how deep.

"Q It is to an unknown depth so far as you know?

"A Six inches to a foot or more. I haven't delved into it to find out how much further than that beyond. I don't know how deep it does go. I did dig a ditch line through that formation four or five feet deep and it was still in the recent formation. That may go hundreds ~~mk~~ ~~fxxx~~ for all I know."

What did you refer to as the Cucamonga channel?

A The channel that runs down through the Red Hill. But the point I was discussing was the point right at the Rubio well, and at that point I have no doubt that the modern and recent alluvium has a depth of several hundred feet.

Q What is your opinion below that?

A When you go further south, toward Base Line, my opinion is the recent alluvium is very thin. And I know further down

where the water is coming out it is intermixed with the ancient gravels as I explained to Judge Britt.

x

Re Cross Examination.

Mr. Britt: On the subject of obtaining water from wells on the lands of plaintiffs in thiscase, I inquire of you if you did not testify a while ago about a shaft close to the winery and not far from the wash ofCucamonga Creek on the lands of the Cucamonga Land and Irrigation Company-- it is close to the wash and near the winery as indicated on map exhibit 1-- and that that shaft was dry at the depth of 180-some-odd feet.

A That is correct.

Q You never saw any water in that shaft, did you?

A I was up there at one time when they were digging that shaft. In fact I was there a number of times when they were digging. And they got water in the bottom of it and I saw some water takenn out of it.

Q What year was that?

A It must have been 1898 or '99 or early part of 1900. I think it was in '98 or '99

Q Was it ever pumped?

A I think not. They got discouraged and allowed it to cave in. They went deep enough to get into water, however.

Q What is the depth?

A I didn't measure it at the time I saw the water there, but at the time I measured it in 1900 it had caved in and I got my tape down a distance of 161 feet.

Q Any water in it then?

A No; there was no water in it at that time. The water was met at 180 to 184 feet.

Q You say they got water out of it? How was that?

A The water I got was in a pail.

Q And you think it would be got out in a pail in commercial quantities?

A No; I wouldn't use the water on the lands right there for commercial purposes, although in the country just a few miles below there they are raising water over 200 feet and irrigating orange grove and doing it successfully.

Q Not in pails?

A No; they use pumping apparatus.

Q A little further west there was the Jordan wells. They also were dry shafts?

A I forgot about those. One of those wells is very shallow.

Q And the other one is 134 feet deep, isn't it?

A It was over a hundred feet. My recollection is that in the Jordan well they got some water. I measured one of the Jordan wells. I measured them both. One was 35 feet deep and the other 118 and they were both dry when I measured them. That was in the early part of 1900.

Q There was never any water that went out of either of them to your knowledge?

A I don't know of their taking water out of either of them.

Q If there had been you would have known of it?

A I am of the impression that they struck water in one of those wells, but I won't be positive; I have no note of it.

Mr. Waters: I don't suppose anybody will claim that that was available for raising water for irrigation?

Mr. McKinley: We don't claim it.

Mr. Britt: Q Going over to what you call the Old Settlers well, where is that situated with reference to the lands?

A The Old Settlers well is shown on defendants' exhibit E in section 3 in the northeast quarter of section 3, township 1 south, range 7 west, and it is marked Well No. 31, elevation, 1313.2.

Q And how far distant from the lands of the Cucamonga Vineyard Company?

A About 1700 or 1800 feet east of the northeast corner of the lands of the Cucamonga Vineyard Company.

Q It is that far removed from any of the land of the Vineyard Company?

A So far as I know.

Q And it gets further away from the lands of the Cucamonga Vineyard Company?

A Something like a quarter of a mile away.

Q And to what depth.?

A I haven't the record at hand. It is in the record here. It was given by the president of the company.

Q Do you know whose land that well is situated on?

A Thepresident of the company testified to the ownership of the land. I think it is the property of the company.

Q Which company?

A The Old Settlers Water Company or association, whatever it is.

Q Do you know what distance they raise water by pumping?

A I haven't any measurements of it because it has been in such a shape that it would be impossible for me to measure

to the water, and the records of the water levels were put in here in detail by the president of the company in this case.

Q I don't suppose you mean to assert that any of the water in that well would be available to irrigate the lands of the Cucamonga Vineyard Company? The fact is the Old Settlers Water Company is extremely short of water in the irrigating season, isn't it?

A There have been times; and that is the object of putting that well down. I understand since the construction of the well they have had an ample supply.

Mr. Britt: I move that what the witness understands be stricken out as not responsive to the question, and as expressive merely of the opinion of the witness and incompetent.

The Court: That portion of the answer had better go out.

A I find that I have a record of the water level taken by me in 1900 of that well. There was a shaft at that time and I find it 54 feet to water and I find the shaft 70 feet deep in 1900 in the early part.

Q You don't know to what depth the water stands when it is pumped, or what the output of the well is for the purpose of irrigation? That, you say, was testified to by someone else?

A Yes, sir; the president of the company. I heard the testimony and I think I made some notes of it which I haven't at hand. He gave both those facts.

Q What is the cost of lifting water by means of pumping, say at the depth of 150 feet?

A I haven't any figures that I could give off hand . I can bring it in to-morrow as an estimate of what it would cost.

Q I don't want a mere guess. I desire to have a reasonable approximation. I don't care about exactitude. I will present those figures and give you estimates based on the cost of pumping in that section.

Q Do you think that water can be pumped from a depth of 150 feet for the profitable irrigation of vineyards or grain lands?

A I would say no, as regards grain lands; but I have had no experience with either grain lands or vineyards with pumped water. There might be some classes of vineyards which would justify lifting the water that high.

Q You gave some additional pumping elevations here, Mr. Trask, of wells 3 and 9, the discharge of the Lady Tunnel, in the year 1907, I think, and possibly some in 1908. There is no copy in the record so far as I can discover of the elevations of wells from about May 1907 to February, 1908. Have you the elevations?

A I have them here, and I will read any that you ask for.

Q They have not been put into the record?

A I haven't been able to prepare those. I haven't had a minute to do it.

Q I will be glad to have you give the elevations during that time.

A Will you please look at the transcript and give me the dates between which you want them?

Q May 6, 1907, is the last. The next is Feb.2, 1908.

(Witnessreads from memorandum the following:)

ELEVATION OF WELLS, Continued.

May 18, 1907, to February 2, 1908.

| | #1 | #2 | #3 | #4 | #5 | #7 | #8 | #9 | #3 | #3 |
|---|---|---|---|---|---|---|---|---|---|---|
| 907. | | | | | | | | | | |
| .8 | 1376.3 | 1370.0 | 1368.9 | 1367.0 | 1366.8 | 1362.2 | 1362.0 | 1326.3 | 1359.3 | 1356.5 |
| . | 1376.0 | 1370.1 | 1369.0 | 1367.1 | 1366.7 | 1362.6 | 1362.4 | 1324.2 | 1359.3 | 1356.9 |
| .4 | 1379.8 | 1370.8 | 1369.6 | 1367.5 | 1366.8 | 1362.6 | 1362.5 | 1325.1 | 1359.6 | 1356.3 |
| 28, | 1382.3 | 1371.8 | 1370.0 | 1368.0 | 1367.3 | 1363.4 | 1363.3 | 1324.6 | 1359.2 | 1356.5 |
| 11, | 1384.8 | 1372.6 | 1370.4 | 1368.4 | 1367.6 | 1363.3 | 1363.0 | 1324.3 | 1360.2 | 1357.1 |
| 30, | 1393.0 | 1373.2 | 1371.5 | 1369.5 | 1368.4 | 1363.8 | 1363.5 | 1325.1 | 1360.6 | |
| 17, | 1398.2 | 1374.2 | 1372.0 | 1369.9 | 1369.1 | 1362.8 | 1362.6 | 1324.8 | 1360.7 | 1357.9 |
| 30, | 1401.2 | 1374.5 | 1372.0 | 1370.0 | 1369.0 | 1364.5 | 1363.9 | 1316.5 | 1361.5 | 1357.3 |
| 6, | 1403.0 | 1374.1 | 1371.6 | | | | | 1313.7 | | |
| 19, | 1364.4 | 1370.7 | 1363.5 | 1355.0 | 1366.1 | 1360.4 | 1346.0 | 1311.6 | 1359.1 | 1355.7 |
| 28, | 1363.4 | 1369.8 | 1367.2 | 1354.5 | 1365.0 | 1359.6 | 1345.6 | 1310.1 | 1358.0 | 1354.9 |
| 5, | 1362.5 | 1363.8 | 1366.5 | 1353.4 | 1363.9 | 1358.6 | 1345.2 | 1309.6 | | |
| 12, | 1362.3 | 1368.6 | 1366.2 | 1353.6 | 1363.6 | 1358.6 | 1344.5 | 1306.5 | 1357.6 | 1354.7 |
| 19, | 1361.6 | 1368.2 | 1365.6 | 1352.8 | 1363.1 | 1357.9 | 1343.8 | 1308.6 | 1356.9 | 1352.6 |
| 21, | 1380.8 | 1372.1 | 1369.2 | 1366.5 | 1365.4 | 1360.4 | 1347.4 | 1309.3 | 1357.9 | 1353.2 |
| 31, | 1391.3 | 1375.2 | 1372.5 | 1369.6 | 1368.5 | 1362.9 | 1363.0 | 1340.7 | 1358.8 | |
| 14, | 1398.3 | 1377.9 | 1375.2 | 1372.4 | 1371.0 | 1365.4 | 1365.4 | 1347.6 | 1361.6 | 1361.4 |
| 26, | 1402.5 | 1378.8 | 1376.0 | 1373.1 | 1371.7 | 1366.6 | 1364.2 | 1335.1 | 1362.8 | 1362.0 |
| 4, | 1365.5 | 1373.8 | 1372.2 | 1356.7 | 1369.1 | 1362.9 | 1347.0 | 1332.8 | 1361.7 | 1360.4 |
| 14, | 1364.4 | 1374.4 | 1371.3 | 1370.0 | 1369.0 | 1361.8 | 1345.0 | 1327.7 | 1360.9 | |
| 1, | 1389.6 | 1378.4 | 1375.4 | 1372.9 | 1371.6 | 1366.6 | 1366.9 | 1313.1 | 1362.8 | 1360.6 |
| 9, | 1394.9 | 1374.5 | 1376.2 | 1373.1 | 1372.1 | 1366.9 | 1367.1 | 1330.1 | 1363.2 | 1361.3 |

8

Q. Your statements made to the Reporter were in such a tone that I didn't get them. These measurements are elevations of wells between the dates that were stated, from May, 1907, to February, 1908?

A Yes, sir.

Q What wells are covered by the measurements you have just now given?

A I have covered the same wells that I covered in the tabulations which precede and follow this, namely, Wells 1 to 5 inclusive, 7, 8 and 9, and Wells 5 and 6. That corresponds to the wells that have been put in the tabulations and this data fills in the missing link and completes the data which I have of the well elevations.

Q Wells 1 to 5 and 7 and 8 are the wells of the San Antonio Water Company north of 16th Street?

A Yes, sir.

Q And Well #9 is at the head of the Lady Tunnel?

A Yes, sir.

Q And the Well #5 is the well at the head of the west branch of the Y Tunnel?

A Yes, sir.

Q And the Well #6 is somewhere else, and I don't know just where it is.

A In what is known as the West Side Cienega or Cienega D, and is in the90-acre tract, the property of the Cucamonga Water Company.

Q Now, Mr. Trask, have you the pumping record of the San Antonio Water Company during the year 1907?

A I think it is in the record, Judge Britt. If you will

examine page 2477 and page 2478 of the transcript you will find the measurements you are inquiring about.

Q Those are occasional measurements. Was there no daily record kept of the pumping during that time?

A No. The clock sheet in the automatic register in 1904 and 1905-- it was not in operation during the pumping seasons of 1907 and 1908, and the measurements which I have consist of personal measurements which I put in.

Mr. McKinley : There is one matter about the logs. I think Mr. Trask stated that he knew something about it the other day. Did you say you made copies?

A I said I had in my possession copies of the logs of wells which appear on this profile and that I copied them personally from the originals which I got from the San Antonio Water Company, and I returned the originals to the San Antonio Company, and that I was not the custodian of their papers and don't knowwhere the originals are.

Mr. McKinley: They have been burned up and nobody knows where they are.

Mr. Britt: In deference to the witness, I may say that he said he had copies of papers which were supplied by the officers of the San Atonio Water Company purporting to be such logs.

A That is another way of stating the same thing.

Mr. McKinley: Of course, he don't know whether they are copies or not. I haven't seen them myself at all. I had the impression that the logs were in existence.

Mr. Britt: Q You say that you have some other figures and statements that we might have called from for from time to time?

A I may have forgotten many of them, but I recollect that you called for the Bodenhamer tunnel.

Q I have forgotten some of them myself.

A And you called for the measurements of the San Antonio Tunnel and Creek flow. I could take them from through my books, but I haven't had time to get them out.

Q Have you any data or measurements which you have in a condition now to be delivered to the Reporter?

A I have here the measurements made by myself of the discharge of the Bodenhamer Tunnel, and they are given in minors inches and the dates of the measurements are written in here, both the year, month and day.

Q Covering what years?

A Covering the period beginning with June 2[illegible], 1896, down to and including October 6, 1900. It represents the rise and fall of the Bodenhamer Tunnel.

Q No records kept since that time?

A No; the tunnel is dry. It has fallen to pieces and it has been abandoned and no water is flowing from it.

Q If that is in condition to be delivered to the Reporter and copied by him it can be delivered to him without being read, if there is no objection to it.

Mr. McKinley: None at all.

Q Anything else which you were requested to produce and which you are in condition to present?

A Nothing that I can present to the Reporter. I have my books and have some measurements scattered through my books of the San Antonio Tunnel waters and of the San Antonio Creek waters, but I have had no time to take them out.

The following is a copy of the tabulation presented by the witness of the Bodenhamer Tunnel:

BODENHAMER TUNNEL.

| | |
|---|---|
| June 25, 1896 | 24.99" |
| July 15, 1896 | 24.14 |
| Sept. 15, 1896 | 28.86 |
| Nov. 2, 1896 | 21.56 |
| Dec. 26, 1896 | 19.00 |
| Jan. 25, 1897 | 16.78 |
| July 6, 1897, | 11.07 |
| " 19, 1897, | 12.29 |
| Aug. 2, 1897, | 13.87 |
| " 16, 1897, | 14.66 |
| Sept. 6,1897, | 15.56 |
| " 20, 1897, | 16.34 |
| Oct. 4, 1897, | 17.06 |
| Mch. 16, 1898, | 21.38 |
| Apr. 14, 1898, | 20.20 |
| May 4, 1898, | 19.31 |
| June 6, 1898, | 19.14 |
| July 5, 1898, | 18.46 |
| Aug 31, 1898, | 20.02 |
| Sept. 15, 1898, | 18.97 |
| Oct. 2, 1898, | 18.97 |
| Nov. 6, 1898, | 18.12 |
| Dec 5, 1898, | 17.62 |
| Jan. 3,,1899, | 17.54 |
| Feb. 6, 1899, | 15.70 |

| | |
|---|---|
| Apr. 5, 1899, | 13.59 |
| May 1, 1899, | 13.59 |
| July 3, 1899, | 12.02 |
| Aug. 7, 1899, | 11.76 |
| Sept. 3, 1899, | 10.88 |
| Oct. 2, 1899, | 10.88 |
| Jan. 1, 1900, | 8.48 |
| Feb. 1, 1900, | 6.58 |
| Mch. 5, 1900, | 6.74 |
| Apr. 1, 1900, | 6.74 |
| May 7, 1900, | 6.74 |
| Aug. 6, 1900, | 6.23 |
| Oct. 8, 1900, | 6.1 |

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Q Have you any measurements in the year 1902 and 1903 of the flow of thewater from the Lady Tunnel or any of the 16th Street wells or of thewater out of the Y Tunnel or the discharge at Weir No.8, Creek Division Box?

A I have some and they are in the record. I havebeen through my notes and picked out every one I can find.

Mr. Waters: There is one question I would like to ask Mr. Trask. A while ago in response to questions asked by Judge McKinley I understood you to say that this gravity water of th Cucamonga Springs, or the equivalent of it, was very readily obtainable by pumping on that area lying to the south and east of the outlet through the Y Tunnel.

A I made such statement.

Q Now, Mr. Trask, do you wish this Court to understand you as meaning that as a practical matter that if a person has a gravity flow of water for the irrigation of a farm, and also underlying that farm at a depth from 80 to 100 feet there is obtainable water by pumping, that it is just as good a thing for him to do away with and abandon his supply of gravity water and dig a well and pump his supply?

Mr. McKinley: Objected to as argumentative.

The Court: Objection overruled.

A I haven't made any such a statement to the Court.

Q You don't mean to be so understood?

A I haven't made any such statement to the Court.

Q Did you mean to be understood that xxx xquivalxxx one was the equivalent of the other as a practical business affair?

A I mean that one is a substitute for the other; that you have the water, whichever source you get it from and you have the necessary amount to irrigate. In that sense it isequivalent. 30 inches of pumped water is equivalent to 30 inches of gravity water for beneficial purposes. In that sense it is equivalent.

Q But in point of value and in point of expense, you don't wish to be understood that one was as economical and beneficial as the other?

A I was not presenting it with those ideas in my mindat all. It was simply that 30 inches of pumped water was equivalent to 30 inches of gravity water in so far as its utility was concerned on any land you might apply it.

Q After you get it to the surface and in a ditch it is the same thing?

A Yes, sir; it would do the same useful work.

Q But at a vastly different expense?

A That would depend on the method of pumping. All those things are details.

Q I suppose it is common knowledge that water won't raise itself.

A And it is common knowledge that it costs money to pump water.

Mr. Conner: Q I have been curious about that water in San Antonio Canyon. You were asked once here for the amount of water that was flowing that you measured the day before. Did you report that?

A I have not. And I am glad you call my attention to it. I have it here and I have carried it for days. These measurements were made on March 14, 1909, and the amount of water flowing through the Ontario Power house weirs, which would represent the amount which went through the line and was flowing into the Creek near the division dam, was 963.5 inches. The amount of creek water flowing in the creek and measured by meter at a point some 2000 feet above the division dam, 2498 inches. In other words, there was a discharge from the watershed of the San Antonio Canyon at a point where the division dam is located, of a total of 3461.5 inches on that date.

-----ooOoo-------

Here the Court takes a recess until to-morrow, March 26, 1909, at 10 o'clock a.m. ---------ooOoo---------

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

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| | |
|---|---|
| Cucamonga Vineyard Co. et al<br>Plaintiff<br>vs.<br>San Antonio Water Company et al<br>Defendant | Mar 26, 1909<br>Vol. 39 |

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Index. INSIDE

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I. BENJAMIN, Official Reporter

Friday, March 26, 1909. Thirty-ninth Day.

Mr. Joliffe: We offer in evidence the articles of incorporation of the San Antonio Water Company, filed in the office of the Clerk of this county on the 21st day of October, 1902, being No. 1092 in the files.

Also the amended articles of incorporation of the same company, No. 1092 of the files, filed October 30, 1901, and I ask permission to have inserted in the record the second clause of the amended articles, as follows:

(Purposes for which San Antonio Water Company incorporates, as stated in Amended Articles of incorporation.)

"Second. That the purposes for which it is formed are to acquire by appropriation, purchase, or otherwise, water, water-rights water privileges and right of way in the Counties of Los Angeles and San Bernardino, and to furnish, lease or sell the same for irrigation, milling, manufacturing and other purposes.

"To own, hold, construct and maintain canals, ditches and all structures, lands, easements and rights appertaining thereto for the purpose of taking and conveying water for the purposes herein mentioned, to owners of lots and blocks in the village of Ontario and none others.

"To make improvements, borrow money and transact any and all business and things connected with the business and things connected with the business of the corporation and relating thereto, to purchase,

erect, construct, equip operate and maintain electrical power plants, pipe lines, flumes, ditches land and all appurtenances, of every kind and description, necessary therefor, to generate electricity, and to produce electrical power for the purpose of pumping water, for lighting purposes, and for all useful or beneficial purposes, and ~~for~~ all useful to use, sell, lease or dispose of electrical power or energy for any and all useful or beneficial purposes, and in general, to do anything and everything necessary or proper for the successful carrying out or fulfilling of each or all of said purposes or powers.

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Mr. McKinley: I understand that the reading is waived of everything that we don't read in these record titles.

The Court: I thought there was such a stipulation in some time ago.

Mr. McKinley: Probably there is, but I wanted to make sure it covered that.

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Mr. Joliffe: I offer in evidence a contract between the San Antonio Water Company and the Ontario Power Company, parties of the first part, and the Cucamonga Water Company, dated November 17, 1903, recorded November 27, 1903, in book 428 of Deeds, at page 114, Records of San Bernardino County.

Said contract is here inserted in the record, and is as follows, to-wit:

Mr. Britt: I don't know what figure this contract cuts in the case.

Mr. McKinley: It is part of our chain of title.

Mr. Britt: It seems to be executed on the 17th of November, 1908. It would scarcely be claimed that any sort of agreements made at that time would affect the title which is the subject of litigation in the case.

The Court: I don't know why, Judge Britt. As I recall that agreement it was introduced in the former suit for the very purpose of showing title.

Mr. Britt: The Court misapprehends. This is dated November, 1908.

The Court: Then that is not theagreement I had in mind. I supposed it was the agreement with Mr. Stowell.

Mr. Jolliffe: It is material in showing what rights we claim and showing what rights the Cucamonga Company claim and a decree would have to be entered establishing the rights of all the companies and the rights between the Cucamonga Company and our companies.

Mr. Britt: We object to the contract as being hearsay as regards the plaintiffs in the case, and incompetent and irrelevant to the issues.

The Court: The objection is overruled. Plaintiffs except.

The following is a copy of said contract:

CONTRACT

SAN- ANTONIO WATER COMPANY AND THE ONTARIO POWER COMPANY

with

THE CUCAMONGA WATER COMPANY.

---

"THIS CONTRACT, made by and between the San Antonio Water Company, a corporation, and the Ontario Power Company, a corporation, the first parties, and the Cucamonga Water Company, a corporation, the second party, WITNESSETH:

"WHEREAS, each of the parties is the owner of certain rights in and to that certain tunnel for the development of water, situate at Cucamonga, in the County of San Bernardino, State of California, known as the Eady Tunnel, and in and to the water that flows, or may be made to flow, from said tunnel;

"AND WHEREAS, a bulkhead has been placed in said tunnel, to conserve and hold back and store underground water that might otherwise flow from said tunnel, in excess of the quantity at the time required for use; said bulkhead being so constructed as to enable the parties thereby to limit and regulate the flow of water from said tunnel, at times when there is a surplus of water held back and stored underground; back of and above said bulkhead;

"AND WHEREAS, the parties are desirous of so regulating and apportioning the flow of water from said tunnel, during the different seasons and months of the year, as shall be best calculated to prevent

waste, and to secure to each party the most beneficial use of the water of said tunnel;

"NOW THEREFORE, it is agreed by and between the parties for and during the term hereinafter stated, as follows:

"ARTICLE I.

"Said bulkhead shall be maintained by the parties jointly, thefirst parties paying two-thirds of the cost of the construction and such maintenance, and the secondparty paying one-third of such cost.

"ARTICLE II.

"The maximum quantity of water that may be taken from said tunnel by either party, during the different months of each year, shall be as follows,-- the term 'inches', as here used,meaning in all cases a measurement under four-inch pressure, --- to wit:

"From and including May 20 to May 31 first parties, 160 inches; second party 80 inches.

"During the months of June and July, first parties 200 inches; second party, 100 inches.

"During themonth of August, first parties, 200 inches; second party, 120 inches.

"During the month of September, first parties, 240 inches; second party, 120 inches.

"During the month of October, first parties, 240 inches; second party, 100 inches.

"From and after the first of November until the close of what shall be deemed the irrigating season for that year(the date of such closing for such year to be fixed at the time by mutual agreement),--

"first parties, 200 inches; second party, 100 inches.

"From and after such closing of the irrigating season until and including May 19th of the following year, first parties, 60 inches; second party, 60 inches.

"ARTICLE III.

"Each party agrees, notwithstanding the maximum quantity of water to which it may at the time be entitled as aforesaid, that it will not, at any time, take from or require to be delivered from said tunnel any water in excess of the quantity that shall then be required by such party for actual use, and the flow of water from said tunnel shall, at all times, as nearly as practicable, be so regulated as to permit a flow to the extent only of the quantity so required for actual use, not exceeding the maximum to which the party may at the time be entitled, as provided in the preceding article. If either party shall not take or receive the full quantity of water to which such party may at the time be entitled, such fact shall not entitle the other party to take or receive any greater quantity than such other party might otherwise be entitled to take or receive, as hereinbefore provided.

"ARTICLE IV.

"Whenever, during any irrigation season, the flow from said tunnel shall decrease and drain down, so that no free water shall be backed up in said tunnel by said bulkhead, and so that access may be

had to said tunnel above said bulkhead, to measure and determine the quantity or proportion of water then rising or flowing into said tunnel from the tract of land belonging to the second party and known as the Ninety Acre tract, and the quantity or proportion of water then rising or flowing into said tunnel from land belonging to the first parties, adjoining said Ninety Acre tract, then from that time forward, until the close of such irrigation season, the first parties shall be entitled to take and receive from said tunnel the quantity orproportion of water rising and flowing into said tunnel from their said land, and the second party shall be entitled to take and receive from said tunnel the quantity or proportion of water rising or flowing into said tunnel from said Ninety Acre tract: At the close of such irrigation season, said bulkhead shall be again closed, to such extent as to permit the flow from said tunnel, for each party, of not more than the maximum quantity of water that such party shall, from time to time, be entitled to take or receive, as hereinbefore provided; and said bulkhead shall be kept so closed, until the flow from said tunnel shall again decrease and drain down in like manner as aforesaid.

ARTICLE V.

"Nothing herein shall be understood to preclude the parties, by mutual consent, from temporarily changing or varying the quantity or proportion of water that either party may at the time take or receive from

said tunnel; but no such temporary change or variation shall estop or preclude either party from insisting, at any and all other times, upon strict compliance with each and every provision of this agreement.

"ARTICLE VI.

"The zanjero of the first party and the zanjero of the second party shall each, at all times, be entitled to like right and opportunity of access to said tunnel and to said bulkhead, and to all gates, boxes, weirs and other appliances for regulating the flow of water from said tunnel, or for dividing the flow as between the parties, or for measuring or determining the quantity of water taken or received by either party; and shall have like right and opportunity, at all times, to make measurement water taken or received by either party from said tunnel.

"ARTICLE VII.

"This agreement shall be in force and effect from and after its execution until the 31st day of December, 1911, and no longer. Nothing herein shall be understood or construed as defining or limiting or affecting any right or obligation of any party subsequent to that date; nor shall any provision of this agreement, as [illegible] or the fact of making this agreement, be understood or construed at any time as defining or limiting, or affecting any right or obligation.

"IN WITNESS WHEREOF, the parties have caused their

corporate names to be hereto subscribed by their respective presidents and secretaries, and their respective corporate seals to be hereto affixed, in duplicate, this 17th day of November, 1908.

(Corporate Seal) SAN ANTONIO WATER COMPANY,

By J. T. Locke, President.

By J. H. Hartley, Secretary.

CATALINA POLO COMPANY,

By L. S. Dyar, President.

(Corporate Seal) By J. H. Hartley, Secretary.

CHAFFEY HIGH COMPANY,

By W. J. Kincaid, President.

)Corporate Seal) By Geo. A. Keyes, Secretaryx.

State of California, )

County of San Bernardino, ) ss.

On this 17th day of November, in the year 1908, before me, A. K. Jilliffe, a Notary Public in and for San Bernardino County, State of California, personally appeared J. T. Locke, known to me to be the president, and J. H. Hartley, known to me to be the secretary of the San Antonio Water Company, one of the corporations that executed the annexed instrument, and they acknowledged to me that such corporation executed the same.

A. K. JILLIFFE,

(Notarial Seal) Notary Public in and for

San Bernardino.

State of California,
County of San Bernardino, } ss.

On this 17th day of November, in the year 1908, before me, L. H. Jolliffe, a Notary Public in and for the County of San Bernardino, State of California, personally appeared L. E. Dyar, known to me to be the President, and J. H. Bartley, known to me to be the secretary of the Ontario Power Company, one of the corporations that executed the annexed instrument, and they acknowledged to me that such corporation executed the same.

L. H. Jolliffe

(Notarial Seal) Notary Public in and for said County.

State of California, }
County of San Bernardino, } ss.

On this 20th day of November, in the year 1908, before me, F. A. Lucas, a Notary Public in and for said County of San Bernardino, State of California, personally appeared W. J. Kincaid, known to me to be the President, and Geo. L. Keyes, known to me to be the secretary of the Cucamonga Water Company, one of the corporations that executed the annexed instrument, and they acknowledged to me that such corporation executed the same.

F. A. Lucas

(Notarial Seal) Notary Public in and for said County.

Endorsed:

Recorded at Request of A. H. Jolliffe Nov. 27 1908 at 14 Min. past 10 a. m. in Book 428 of Deeds Page 114. Records of San Bernardino County.

J. F. Johnson, Jr,. County Recorder

By A. L. Russell Deputy Recor

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Mr. Jolliffee: I now offer in evidence a deed of date Sept. 7, 1899, betw een the Cucamonga Fruitland Company, a corporation, and the San Antonio Water Company, a corporation, conveying a right of way described therein.

The following is a copy of said deed:

THIS INDENTURE, made this 7th day of September,1899, by and between the Cucamonga Fruit Land Company, a corporation, theparty of the first part, and the San Antonio Water Company, a corporation, the party of the second part,

WITNESSETH: That the said party of the first part for and in consideration of the sum of One ($1.00) Dollar, and other good and valuable considerations, to it in hand paid, the receipt whereof is hereby acknowledged, does hereby grant unto the said party of the second part a right-of-way in, through, over, across and upon the lands of the party of the first part, situate in theCounty of San Bernardino, State of California, for the purpose of laying and maintaining a sixteen (16) xixteen inch pipe line, upon a strip of land ten (10) feet

wide, the center line of which is more particularly described as follows, to-wit: Beginning at a point in the San Bernardino Base Line, Three Hundred and Seventy-four (274) feet West of the corner to Sections Four and Five, Township One South, Range Seven West, San Bernardino Base and Meridian; thence South 71 [illegible]' West One Hundred and Forty-eight feet; thence South 77 5' West, Five Hundred feet; thence South [illegible] 10' West Three Hundred and Twenty-one feet, intersecting the East line of what is known and designated as the Ontario Colony Lands, as per map of said Ontario Colony Lands recorded in the office of the County Recorder of said County of San Bernardino, at a point Two Hundred and Two feet South of said above mentioned Base Line.

Together with the right to perpetually maintain said pipe line along the right-of-way hereby granted and hereinabove described; together with the farther right to go upon said right-of-way, at any and all times, for the purpose of making any and all necessary repairs upon said pipe line, and of re-constructing the same, or any part thereof along said right-of-way.

IN WITNESS WHEREOF, the said party of the first part has caused these presents to be signed by its undersigned officers, duly authorized thereunto, and its corporate seal to be hereunto affixed, the day and year herein first above written.

Cucamonga Fruit Land Company,

By Herman [illegible]. Hellman President

(Corporate Seal) By [illegible] T. Wright, Secretary.

State of California, )
) ss.
County of Los Angeles. )

On this 7 day of October in the year one thousand eighthundred and ninety-nine before me [illegible] Reed, a Notary Public in and for said County of Los Angeles, State of California, residing therein duly commissioned and qualified, personally appeared Herman W. Hellman known to me to be the president, and [illegible] Y. Wright known to me to be the secretary of Cucamonga Fruit Land Company the corporation that executed the within instrument and acknowledged to me that such Corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

R. M. Reed,

(Notarial Seal) Notary public in and for Los Angeles County, State of California.

Endorsed:-

Recorded at Request of [illegible] C. Shepherd Feb. 13,1900 at 10 min. past 3 p/ m. in Book 278 of Deeds Page 279 Records of San Bernardino County.

J. F. Johnson, Jr.,County Recorder.

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Mr. Britt: This paper, Cucamonga Fruit Land Company with the San Antonio Water Company, is offered as part of the chain of title.

Mr. Jolliffe: Part of the chain of title and also to

prove notice on the part of the Vineyard Company and the Cucamonga Land and Irrigation Company, from the fact that it purports to be signed by Herman W. Hellman as president of the Fruit Land Company, and he was at the same time a director of the Cucamonga Land and Irrigation Company plaintiffs in this case.

Mr. Britt: This paper seems to be an agreement between the Cucamonga Fruit Land Company and the San Antonio Water Company executed on the 7th of September, 1889, conveying some right of way; and we object to the reception of the paper in evidence as being incompetent, and irrelevant, as regards the Cucamonga Land and Irrigation Company and also the plaintiff Old Settlers Water Company. Mr. Waters being absent I make this objection for him and for the benefit of all parties. That it is hearsay as to all of these plaintiffs and to each one of them separately.

The Court: The objection is overruled.

Mr. Jolliffe: I offer in evidence a deed from George H. Haskell to Nellie M. Haskell, of date March 27, 1890, recorded March 28, 1890, in Book 111 of Deeds page 149, San Bernardino County Records, conveying Lot 6 of Block 16, where the Haskell well is. Also a part of the chain of title.

Mr. Jolliffe: I offer deed from Nellie M. Haskell to J. F. Haskell, dated February 16, 1892, recorded February 19, 1892, in Book 150 of Deeds page 56, Records of San Bernardino County.

(The following are copies of said last two deeds offered:

This Indenture, Made this 27th day of March, in the year of our lord one thousand eight hundred and ninety between Geo. A. Haskell the party of the first part and Nellie ... Haskell his wife the party of the second part, witnesseth: That the said party of the first part, for and in consideration of Love and affection and Two Dollars, coin of the United States of America, to him in hand paid by the said party of the second part, the receipt thereof is hereby acknowledged, does by these presents grant, bargain and sell, convey and confirm unto the said party of the second part, and to her heirs and assigns forever, all that certain lot and parcel of land, situate, lying and being in the County of San Bernardino, State of California, and bounded and particularly described as follows, to-wit:

20 Acre Lot 6 in Block 16 of the Sunsongs Homestead Association tract according to the survey of Geo. Hansen.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof.

To Have and to Hold, all and singular the said premises, together with the appurtenances, unto the said party of the second part, and to her heirs and assigns forever.

In Witness Thereof, the said party of the first part has hereunto set his hand and seal the day and year first above written.

Signed, Sealed and Delivered in the presence of } Geo. A. Haskell (Seal)

State of California, }
County of Los Angeles, } ss.

On this 27th day of March in the year of our Lord one thousand, eight hundred and ninety, before me, George E. Pratt a Notary Public in and for said Los Angeles County, residing therein, duly commissioned and sworn, personally appeared Geo. I. Haskell known to me to be the same person described in and whose name is subscribed to the annexed instrument, and acknowledged to me that he executed the same.

In Witness Whereof, I have hereunto set my hand, and affixed my Official Seal, at my office in the City and County of Los Angeles, the day and year first above written.

(Seal) Geo. E. Pratt
Notary Public.

A full, true and correct copy of the original
Recorded at request of Wells, Fargo & Co.,
March 28th, 1890, at 4:03 P. M.

A. S. Davidson,
County Recorder.
By M. Mulcahy,
Deputy.

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This Indenture, made the Sixteenth day of February, in the year of our Lord one thousand eight hundred and ninety-two, Between Mrs. Nellie M. Haskell, wife of George A. Haskell of the City of Los Angeles, County of Los Angeles, State of California, the party of the first part, (the property hereinafter described being the sole and separate property of the party of the first part, said Nellie M. Haskell), and J.P.Haskell of Cucamonga, San Bernardino County, State of California, the party of the second part, Witnesseth: That the said party of the first part, for and in consideration of the sum of Five Dollars, gold coin of the United States of America, to her in hand paid by the said party of the second part, and for other good and valuable considerations done and performed by the said party of the second part for and on behalf of the party of the first part, the receipt thereof is hereby acknowledged, as subject to the covenants and reservations hereinafter contained, has granted, bargained and sold, conveyed and confirmed, and by these presents does grant, bargain and sell, convey and confirm unto the said party of the second part and to his heirs and assigns forever, all that certain lot, piece or parcel of land situated, lying and being in the County of San Bernardino, State of California, and particularly described as follows, to-wit:

Twenty acre lot Six in block Sixteen of the tract of land of the Cucamonga Homestead Association, according to Hansen's survey of said lands made in July and August, 1874, a plat of which said lands is on record in the Recorder's Office of San Bernardino County, State of California, in book, Miscellaneous Records, page,

neous Records, page , also 2/300 of all the water flowing or to flow in the Cucamonga Creek or Canyon, also all the water in a certain dug well in the north west corner of said lot 6, in block 16, reserving and retaining unto the said party of the first part the full and complete right to run tunnels, sink wells, or in any manner whatever to develope the underground water,on any and all of said lands hereby conveyed; reserving also the right of ingress and egress over and across said lands for the purpose of developing said water, and for laying, maintaining and operating pipe lines for the transportation or conveyance of the same; reserving also the full and complete title to all of said waters so developed, and the right to sell and dispose of the same as the said party of the first part may see fit, and said rights shall inure to the benefit of the grantee, assigns, or the heirs, executors and administrators of the party of the first part, provided, however, that no tunnel or well shall be run or sunk within three hundred and thirty feet of a certain dug well on the north west corner of the above described lot six in block 16 and that no improvements of the second party shall be injured. Together with all and singular the tenements, hereditaments, and and appurtenances thereunto belonging, or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, except as herein reserved and retained by the said party of the first part, To have and to hold all and singular the said premises, together with the appurtenances, unto the said party of the second part, his heirs and assigns forever, subject to the

foregoing covenants. In Witness Whereof, the said party of the first part has hereunto set her hand and seal the day and year first above written.

Mrs. Nellie M. Haskell (Seal)

State of California, }
County of Los Angeles, } ss:

On this sixteenth day of February, in the year of our Lord one thousand eight hundred and ninety-two, before me, E. E. Cornwell, a Notary Public, in and for the said Los Angeles County, residing therein, duly commissioned and sworn, personally appeared Mrs. Nellie M. Haskell, a married woman, known to me to be the person described in and whose name is subscribed to the within instrument, and acknowledged to me that she executed the same.

Witness my hand and official seal.

(Notarial Seal) E. E. Cornwell Notary Public in and for Los Angeles County, State of California.

Endorsed: Recorded at request of Tibbot Sweesy & Condee Feby. 19th, 1892, at 35 min. past 3 P.M. in Book 150 of Deeds, page 57 Records San Bernardino County. A. S. Davidson, County Recorder by J. F. Johnson Jr. Deputy Recorder.

A full, true and correct copy of the original.

A.S. Davidson County Recorder
By C. O. Alkire, Depty.

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Mr. Jolliffe: I offer deed from Nellie E. Haskell, George A. Haskell and J. F. Haskell to the San Antonio Water Company, conveying the same property, of date the 3rd day of June, 1889, recorded July 6, 1889, in Book 268 of Deeds, at page 327, of the records of San Bernardino County.

The following is a copy of said deed:

(Deed: Nellie E., Geo. A. and J. F. Haskell, to San Antonio Water Company.)

---

WE, the undersigned, Nellie E. Haskell and Geo. A. Haskell, her husband, and J. F. Haskell of the County of San Bernardino, State of California, in consideration of Six Thousand Dollars, ($6000.00), to us in hand paid by the SAN ANTONIO WATER COMPANY, a corporation, the receipt of which money is hereby acknowledged, do hereby grant to the San Antonio Water Company, a corporation, all interest property situate in the County of San Bernardino, State of California, and particularly described as follows:-

Being Lot number six (6) in Block number sixteen (16) of the tract of land platted and known as the "Cucamonga Homestead Association", a plat of which is of record in Book 6 of maps, page 46, in the Recorder's office of the said County of San Bernardino,

~~Together with the exclusive right to use the water flowing or to flow in the Cucamonga Creek or Canal.~~

The said San Antonio Water Company, a corporation,

s and agrees to pay and discharge at its own cost and expense that certain mortgage executed by J. F. Haskell to Eleanor Freeman for the sum of Fourteen Hundred Dollars, and recorded in the office of the Recorder of said County of San Bernardino in Book 102 of Mortgages, at page 33.

WITNESS our hands this 30th day of June, 1899.

Nellie . Haskell (Seal)

Geo A Haskell (Seal)

J. F. Haskell (Seal)

State of California, )
County of Los Angeles. ) ss.

On this 30th day of June, in the year one thousand eight hundred and ninetyenine before me, . . . Scarborough, a Notary Public in and for said County of Los Angeles, State of California, personally appeared Nellie . Haskell and George A. Haskell, her husband, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above writtenx.

. E. Scarborough.
Notary Public in and for Los Angeles
(Notarial Seal) County, State of California.

State of California, )
County of San Bernardino. ) ss.

On this 1st day of July, in the year one thousand

eight hundred and ninety-nine, before me F. W. Hart, a Notary Public in and for the said County of San Bernardino, residing at North Ontario, personally appeared J. P. Haskell known to me to be the person whose name is subscribed to the within instrument, and who acknowledged to me that he executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

(Notarial Seal) F. W. Hart

Notary Public in and for San Bernardino County, State of California.

Endorsed:-

Recorded at request of E. C. Shepherd Jul 6 1899 at 24 min. past 11 a. m. in Book 260 of Deeds, Page 327, Records San Bernardino County.

J. F. Johnson, Jr.,
County Recorder.

( $6.00 in U.S.Int. Revn. Stamps affixed and cancelled.)

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Mr Jolliffe: I offer in evidence a deed from H. W. and M. A. Keller to E. C. Shepherd, of date July 14, 1899, recorded July 17, 1899, in Book 271 of Deeds at Page 280, of the records of San Bernardino County, conveying lots 4 and 5 in block 16 of the Cucamonga Homestead Association lands.

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Mr. Jolliffe: I offer in evidence a deed from D. C. Shepherd to the San Antonio Water Company, dated August 31, 1899, recorded September 6, 1899, in Book 270 of Deeds at page 345, of the Records of San Bernardino County, conveying the same property as described in thelast deed, being lots 4 and 5 of the Cucamonga Homestead Association land.

The following is a copy of said deed:

DEED

D. C. Shepherd to San Antonio Water Co.

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I the undersigned, D. C. Shepherd, of theCounty of San Bernardino, State of California, for and in consideration of One Dollar, lawful money of the UnitedStates, to me in hand paid, the receipt whereof is hereby acknowledged, do by these presents hereby grant unto the San Antonio Water Company, a corporation, having its office and principal place of business at Ontario, in said County and State, all those certain lands and premises situate in the said County of San Bernardino, State of California, described as follows, ~~in-wit~~ viz: Being Lots Four (4) and Five (5) in Block Sixteen (16) of the Cucamonga Homestead Association lands, as per map thereof appearing in Book 6 of Maps, page 46 thereof, Records of the said County of San Bernardino; together with all water and water rights belonging to said lands, or thereunto in any wise appertaining.

In Witness Whereof I have hereunto set my hand this 31st day of August, 1899

E. C. Shepherdx.

($3.50 U.S.Int.Rev. stamps affixed and cancelled.)

State of California, )
) ss.
County of San Bernardino. )

On this 4th day of September in the year of our Lord one thousand eight hundred and ninety-nine before me, WERNER F. CRAFT, a Notary Public in and for said County and State, residing therein, duly co issioned and sworn, personally appeared E. C. Shepherd known to me to be the person described in and whose name is subscribed to the within instrument, and acknowledged ~~to me~~ that he executed the same.

In Witness Whereof I have hereunto set my hand and affixed my Official Seal the day and year in this certificate first above written.

(Notarial Seal) Werner F. Craft

Notary Public in and for the county of San Bernardino, State of California

Endorsed:-

Recorded at Request of San Antonio Water Co. Sep 6 1899 at 25 min. past 9 a. m. in Book 270 of Deeds Page 345 Records of San Bernardino County.

J. F. Johnson, Jr.,

County Recorder.

By A. M. Rigby, Deputy Recorder.

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Mr. Jolliffe: I offer a deed from Isaias W. Hellman and xxx Isaiah W. Hellman to Frank A. Gibson, dated April 9, 1886, recorded in Book 46 of Deeds, at page 248, of the records of San Bernardino County on the 3rd day of May, 1886; conveying part of the lands in the 262-acre tract but not all of it.

Mr. Jolliffe: I offer a deed from the Cucamonga Homestead Association to Frank A. Gibson dated April 9, 1886, recorded May 3, 1886, in Book 46 of Deeds, page 251; conveying the whole of the 262-acre tract and other property.

Mr. Britt: That wells or water lie within this 262 acre tract,

Mr. Jolliffe: Our well no. 9 is on that tract and your well 14.

Mr. McKinley: All the waters that come on to the 90-acre tract come off of this property.

Mr. Britt: We have had a 2-acre tract and a 50-acre tract and other tracts.

Mr. Jolliffe: The 2-acre tract and the 50-acre tract are part of this, as I understand it.

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Mr. Jolliffe: I then offer a deed from A. I. Wright, J. C. Lynch and E. L. Wicks and L. L. Hodgkins, to Frank A. Gibson, of date April 10, 1886, and recorded May 3, 1886, in Book 256, records of San Bernardino, of Deeds, conveying part of the 262-acre tract and water rights.

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Mr. Jolliffe: I offer in evidence a deed from Frank A. Gibson to theCucamonga Fruit Land Company, dated April 21, 1886, recorded May 3rd, 1886, in Book 40 of Deeds at page 262, records of San Bernardino County; conveying parts of the262-acre tract and water rights.

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Mr. Jolliffe: I offer a deed from the Cucamonga Fruit Land Company to the California Land ~~xxx~~ Improvement Company, dated January 20, 1902, recorded March 6, 1902, in Book 315 of Deeds at page 296, conveing all of the 262-acre tract.

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Mr. Jolliffe: I offer in evidence a deed from the California Land ~~xxx~~ Improvement Company to ~~xx~~ Ontario Power Company, dated May 9, 1902, recorded May 15, 1902, in Book 315 of Deeds at page 626, of the Records of San Bernardino County, conveying all of the 262-acre tract and other property.

The following is a copy of the deed offered:

DEED.

California Land Improvement Co. to Ontario Power Co.

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RESOLVED, that the California Land ~~and~~ Improvement Company will sell to theOntario Power Company for One hundred twenty-two thousand five hundred ($122,500) dollars of the par value of the bonds of the Ontario Power Company, issued under and described in a certain deed of trust recorded in

book 1546, page 85 of Trust Deeds, records of Los Angeles county, California, to which reference is hereby made, the following described real property, to-wit:

All that real property situated in Ontario, San Bernardino county, California, bounded and described as follows, viz: lots numbered 245, 246, 247, 248 271, 272, 273, 274 275, 309, 310, 311, 312x, 313, 314, 337, 338, 339, 340, 341, 342, 343, 347, 348, 349, 350, 373, 374, 375, 376, 385, 386, 387, 388, 411, 412, 413, 414, a plat of which is recorded in the county recorder's office in San Bernardino county in book 11 of Maps at page 6 thereof;

Also all that real property situate in the County of San Bernardino and State of California, described as follows, to wit; All in the Rancho Cucamonga, commencing at the southwest corner of section four (4), township one (1) south, range seven (7) west, S. B. B.; thence north 0°06' east on section line 600 feet; thence south 89°57' east 490 feet; thence north 0°06' east 2900 feet; thence south 89°57' east 1019.32 feet to lands of Cucamonga Land and Irrigation Company; thence north 0°01' east 1661.9 feet to San Bernardino Base Line thence south 89°56' west along San Bernardino Base Line 2839.30 feet; thence south 0°06' west 41.43 chains to north line of section 8; thence south 89°51' east 20.04 chains to place of beginning, estimated to contain 262 acres.

Also lots one (1), Two (2), three (3) and four (4), of section 8, and lot four (4) section 9, township 1 south, range 7 west, S. B. M. (Reserving and therefrom rights of way granted to San Antonio Water Company for pipe lines; also reserving the right to develop and maintain upon said lands 165 inches

of flowing water and to take therefrom 130 inches of water as in deed recorded in book 270 of deeds, pages 314-318, records of San Bernardino county, said deed dated the 6th day of April, 1899) Estimated to contain in all 365 acres of land.

And the said deed shall contain a covenant on the part of the party of the second part that, all water now flowing from said lands, or hereafter developed thereon, shall be allowed to flow therefrom without hindrance or obstruction in any manner, for a period of two years from date hereof, or until the title to said 130 inches of water above referred to is fully vested in said San Antonio Water Company, and that no pumping shall be done thereon until such title is so vested.

Also lots numbered 1, 2, 3, 6, 7, 8, 9, and 10, in block numbered 20 of the tract of the Cucamonga Homestead Association, as the same are shown upon a map recorded in book 6 of maps, page 46, of the records of San Bernardino County, and lot numbered 7, in block numbered 26, of said tract, as per map attached to final decree in partition in the action of Meyberg vs. Hellman, et xxxx al., reference being hereby made to the records of the Superior Court of the county of San Bernardino, California, for more particular description.

And that George Chaffey, as president, and F. L. Chaffey as secretary, be and they are hereby authorized and empowered to sign the corporate name and affix the corporate seal of this corporation to the deed of grant, bargain and sale conveying the said property, and to deliver thesaid deed upon the delivery to them for this corporation of bonds of the Ontario Power Company of the par value of $122,500.

($60.00 in Int. Rev. stamps affixed and canceled.)

State of California, )
) ss.
County of San Bernardino. )

I, A. E. Chaffey, do hereby certify that I am the secretary of the California Land ~~xxx~~ Improvement Company, and that the foregoing is a true and correct copy of a resolution duly passed by the Board of Directors of said corporation duly held upon the 9th day of May, 1902.

(Corporate Seal) A. E. Chaffey Secretary.

NOW, THEREFORE, this indenture, made this 9th day of May, 1902, by and between the California Land ~~xxx~~ Improvement Company, a corporation duly organized under the laws of the State of California, party of the first part, and the Ontario Power Company, a corporation likewise duly organized under the laws of the state of California, party of the second part,

WITNESSETH, that, for and in consideration of the sum of One hundred twenty-two thousand five hundred dollars ($122,500) paid by theparty of the second part to the party of the first part, the receipt whereof is hereby acknowledged, said party of the first part does hereby grant, bargain, sell and convey unto the said party of the second part, its successors and assigns, all that certain real property in the resolution hereinabove set forth, to which resolution reference is hereby made for a more particular description of the property conveyed, subject to the following conditions, to-wit:

That the party of the second part herein covenants and agrees that all water now flowing from said land, or hereafter developed shall be allowed to flow therefrom without hindrance or obstruction in any manner for a period of two years from date

hereof, or until the title to the130 inches above referred to is fully vested in the San Antonio Water Company, and no pumping shall be done thereon until such title is so vested.

TO HAVE AND TO HOLD all and singular the above described premises, together with the appurtenances, unto the said party of the second part, its successors and assigns forever.

Together with all the tenements,hereditaments and appurtenances thereunto belonging or in any wise appertaining.

IN WITNESS WHEREOF the said party of the first part has caused its corporate name to be signed and its corporate seal to be hereunto affixed by its president and secretary in accordance with the terms of the resolution hereinabove set forth.

CALIFORNIA LAND IMPROVEMENT COMPANY

By Geo. Chaffey President.

(Corporate Seal)

By A. B. Chaffey Secretary

State of California )
; ss.
County of Los Angeles. )

On this 13th day of May in thryear one thousand,nine hundred and two A. D. before me, Paul A. McPherson Notary Public in and for said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared George Chaffey and A. B. Chaffey known to me to be the president and secretary, respectively of the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal in said county, the day and year in this certificate first above written.

Paul A. McPherson

(Notarial Seal) Notary Public in and for Los Angeles County, State of California.

Endorsed:-

Recorded at Request of Graves, O'Melveny & Shankland May 15, 1902, at 10 min. past 11 a. m. in Book 315 of Deeds Page 626 Records of San Bernardino County.

J. F. Johnson, Jr.,

County Recorder.

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Mr. Jolliffe: I offer in evidence the Articles of Incorporation of the Ontario Power Company, and I ask that the Reporter copy into the record the purposes named in said articles.

The following is a copy of the purposes of incorporation of Ontario Power Company, as appears in its articles of incorporation last herein offered in evidence:

ARTICLES OF INCORPORATION

of the

O N T A R I O  P O W E R  C O M P A N Y.

(Purposes of Corporation)

THIRD: That the purposes for which it is formed are: to acquire, own, operate, manage and control street-cars, street-car lines and systems, to manufacture, produce, generate, or otherwise obtain electric light, power and heat, by either water power, steam-power, or by power generated in other manners; to condemn and obtain rights of way, easements and franchises, for the purpose of marketing, selling, storing, furnishing, and conducting and transporting water, light, power and heat to such places as may be determined; to sell, furnish and deal in electric light, heat and power, and water, and dispose of such portion s thereof that may not be used, or necessary for this corporation, to cities, towns, villages, corporations and individuals; to erect, construct and operate such buildings, structures, machinery, apparatus and devices as may be deemed necessary or convenient for the purposes of the corporation; to locate, claim, divert, appropriate and otherwise acquire water and water rights, under the laws of the State of California, or of the United States of America, for all purposes; to construct, acquire and maintain ditches, dams, tunnels, levees, viaducts, bridges, embankments, excavations,

conduits, and pipe-lines across and over any water-course, lake, stream, or water-way, and to sell, lease, grant or otherwise dispose of so much of the water or water-rights thus secured, controlled or appropriated, to other persons, corporations, or individuals, as may be determined; to transmit electric light, power and heat to purchasers thereof, by means of poles, wires, conduits and sub-ways, or otherwise, over and through any lands or waters, or both, in said State of California, as the purposes of said corporation shall require; to acquire by deed, gift, sale, grant or otherwise, lands, tenements, water, water rights, bonds, notes, bills, claims, stock of incorporated companies, franchises, privileges, patent rights, licenses, property, and every estate, right, interest and appurtenance in, to and concerning real and personal property of every name and nature, legal and equitable, and to have and to hold,use and enjoy, manage, control, grant, assign, transfer and convey, encumber and mortgage, or deed of trust, or otherwise dispose of the same and every part thereof, or interest therein; to engage in the business of manufacturing in all its departments; to engage in the business of supplying light, heat, or power, by electric appliances, or otherwise; to sell or exchange the capital stock of the corporation hereby created, or any part thereof, or the capital stock of other corporations, for their property rights or franchises, as may be determined to be necessary for the business of this corporation, and the transaction of this business.

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ARNOLD BOSCH.

ARNOLD BOSCH, a witness produced by defendants, being first duly sworn, testified as follows:

Direct Examination.

Mr. McKinley: Q. Where do you reside?

A. I reside at Cucamonga.

Q. How long have you resided there?

A. It will be six years on the first of July.

Q. What is your business?

A. Wine maker and superintendent of the Cucamonga Winery.

Q. Have you charge of all the lands there of the Cucamonga Vineyard Company and the Cucamonga Land and Irrigation Company?

A. I have practically charge of it. That is, I am hired by the Cucamonga Winery to take charge of it.

Q. During thelast two years, Mr. Bosch, in theirrigating season of 1907 and '08, have you made any use of water on those lands, or at all?

A. Yes, sir; I had a little water to irrigate the orange trees. There are a few oranges there.

Q. Is that the only water that you have used,-- for the irrigation of oranges?

A. That is practically all the water I have used.

Q. How much have you used for that purpose?

A. I can't tell you how much I have used; very little. I just dictate to the men to go ahead and irrigate; that is all I have done..

Q. How frequently have you irrigated during the season,

A. I should judge about three or four times during the season.

Q. Can't you approximate about the amount of water you used?

A. No; I cannot.

Q. How large is the orange orchard?

A. It is a small strip.

Q. About how many acres?

A. It doesn't run into acres; there isn't an acre of it.

The Court: Q. About how many trees,

A. Somewheres about 35-- from 30 to 40.

Q. Not over 40?

A. Not over 40. I don't think there was over 40 that I have irrigated. We have had more but we didn't have water for the others and they all died on us-- nearly all.

Mr. McKinley: Q. What has become of the water running there at the division box? Who took it during 1907 and '08?

A. I don't know who took it.

Q. You didn't get it?

A. We got what we wanted and what we used for domestic use.

Q. But you don't know what became of the rest of it?

A. No.

Q. You have had charge of the vineyard and the gathering of the crop, Mr. Bosch, during the last few years?

A. Yes, sir.

Q. Can you state what amount of grapes you had during the season of 1908?

A. Yes.

Q. How much?

A. In 1907 we received 1,758,010 pounds.

Q That is all you received?

A That is all we received.

Q What is the acreage in vineyard there?

A I can't tell you that exactly; I have never surveyed it and I don't claim to be a surveyor.

Q And the next year what amount of grapes did you receive?

A During the next year 1,956,060 pounds.

Q You are a wine maker and are familiar with grapes and their character?

A I am familiar with them; yes, sir.

Q What was the character of these crops as to being good or otherwise?

A You can't take it by th e whole. Some were good and some were bad.

Q As a whole what would you say as to the crop?

A You can't take it by the whole; I say some were good, and if some are not good they are not good.

Cross Examination.

Mr. Stevens: Q Who did you say you were employed by?

A The Cucamonga Winery.

Q Who conducts the Cucamonga Winery?

A Our main office is in San Francisco. Mr. Percy T. Morgan is the president.

Q You are not employed by the Cucamonga Vineyard Company?

A I have nothing to do with it. Practically, in one way, I am looking after the Cucamonga Land and Irrigation Company's property. I do the renting of it and that is about all I do in regard to that land?

Q What do you do for them,

A I am renting the land for them, to parties to raise hay.

Q You have charge of the lands of the Cucamonga Vineyard Company?

A Yes; through theCucamonga Winery.

Q You have charge of the vineyard there?

A Yes, sir.

Q State whether or not there have been any new vines planted in the last few years which have come into bearing since?

A There has been a young vineyard that was planted before I camethere which came into good bearing in 1907.

Q What was the extent of that in acres?

A Somewheres around 45 and 50 acres.

Q When did that first comeinto bearing?

A In 1907 it was in good bearing.

Q Do you know how much was produced from that?

A I can't tell you exactly; I should judge about 175 to 200 tons.

The Court: Q Were these figures included in the figures you gave before?

A Yes, sir; that was the total we received.

Q And this young orchard was not irrigated during the time you have spoken of?

A It was not irrigated during the time I have spoken of.

Q You have been there how long?

A Six years in July.

Q Was the vineyard irrigated at any time you were there?

A It has not been irrigated since I have been there.

Mr. Stevens: Q You said something about getting all the

water you wanted: what did you mean by that?

A For that little orange grove.

Q Did you get any water for the irrigation of the vineyard?

A No, sir.

Q Didn't you say when you were on your direct examination, that you got all the water you wanted, and didn't you state that it meant for domestic purposes?

A Well, that is for the horses.

Q That is what you mean when you say you got all you wanted/?

A Yes; for domestic purposes. Well, there was one season that I was short; that was the second year I was here. I couldn't irrigate the oranges for two seasons; I didn't have enough for those trees.

Q What season was that?

A I believe it was in 1904 and '5; we couldn't irrigate the orange trees.

The Court: Q You had more water in the last two years?

A Yes, sir; more than we had before.

Mr. Stevens: Q How much more did you have?

A I can't tell you; I have never measured the water.

Q Where did the water come from that you used for irrigating the oranges? Did it come out of the creek?

A Well, I took it out of thereservoir.

Q Do you know what got into the reservoir,?

A It came from the creek.

The Court: Q How much experience have you had in the care of vineyard before you took charge of this vineyard?

A I have had a little vineyard of my own up north, and of course I have been around vineyards a great many years.

Q Have you had to do with the cultivation of them?

A Well, I didn't do it myself, but being in the business I only oversaw this one here.

Q I mean have you had charge of the work and saw the work done and what the results were in these other vineyards as well as the one at Ducamonga? Is that what you mean?

A Yes, sir.

Q What in your opinion would be the effect of water for the irrigation of the vineyards? Would it help or not,?

A It would help nearly all of them. I won't say all of them, but there is a great many vines it would help a great deal.

Q Would you get a larger crop or a better quality?

A No, you take, for instance, the Berger grape: If it isn't irrigated sometimes they dry out in about the first part of August.

Q Is that a wine grape?

A It is a wine grape.

Q How about theother varieties?

A The zinfandel will stand it better.

Q What have you on that place? What varieties?

A And the mission vines are very old and sometimes they don't pull through and they start in to shrink about the middle of July or first of August.

Q You mean the fruit shrinks?

A Yes, sir.

Q Is the quality good?

A The bergers will not bear good.

Q But the zinfandel will be as good in quality?

A Very nearly as good in quality, but there is a shrinkage. When you irrigate grapes they bring more grapes than if you don't irrigate.

Q I suppose you get more water but not more sugar?

A No, you find up north where they irrigate in certain places they get seven or eight tons to the acre, and on low bottom lands where they have plenty of water 10 or 12 tons to the acre.

Q Are the conditions the same as in the soil at Cucamonga?

A I consider the soil very good there for vineyard. If we have heavy rains during the winter our vines will pull through better than in the dry season.

Q Speaking generally of vineyard in Southern California, isn't it the practice to resort to winter irrigation and not summer? Give them plenty in the winter and let them go without in summer?

A Here if we have plenty of water in the winter it will keep the moisture almost till they start in to fully mature; and if you have no water you can't do that; they dry out before. If you have a wet year and the moisture holds out to the first of August and you have water to put down there, then you have enough water to pull it through the otherwhile, because about the first of September we nearly always start in to crush.

Q On this particular vineyard, you can operate that vineyard profitably without water; but if you had water it

it would be moreprofitable.

A It would be moreprofitable I should judge.

Q You can raise them now profitably? That is, it is possible?

A That is what I don't know.

Q I thought you were in charge of it?

A I have nothing in regard to the disbursements and I don't keep no record.

Q You have only the output in pounds?

Q You know approximately what those sell for?

A What they have sold the last year and what others have been getting. I have only bought one small lot at cash price.

Q These grapes that you gathered on the ranch were reduced to wine right there at the winery, or did you ship them away?

A They came to the winery at North Cucamonga.

Q So you don't have anything to do with the making of the wine?

A Yes; I make the wine.

Q So you know about what it costs?

A Here is the record of all the grapes we got.

Q You had charge of the expenses of cultivating the crop and gathering the crop and reducing it to wine?

A I have charge of cultivating the vineyard, that is all. But at the end of the month I make out a voucher and that is sent to San Francisco to the office. I just pay the expenses and I enter what it is for, and it is settled in San Francisco.

Q Then as I understand, you don't know what the product p paid or what it costs when it is reduced to wine?

A I would have to go through the books or send to San Francisco before I would know which was which.

Mr. Haskell: Q How many years have you been in Cucamonga in the wine business or cultivating wine grapes?

A In Cucamonga?

Q Yes, sir.

A It will be six years next July.

Q During that period of time have you not observed that in some years there has been a loss of as high as 25 per cent. of the weight of the product caused by the drying up and shrinking of the grapes, just before the eve of the season, by hot winds and dry weather?

A I believe last year there was a loss of 200 tons on account of the drying up of the grapes.

Q On what vineyard?

A That is on the white bergers alone.

Q Haven't you observed the same or similar conditions in nearly all of the vineyards in Cucamonga?

A Sir?

Q You have observed similar conditions in the vineyards there, haven't you?

A Some vineyards have and some haven't.

Q You are acquainted with the Haven vineyard and other vineyards in that locality?

A Yes, sir.

Q Haven't they suffered a heavy loss by drying?

A I didn't investigate other people's property; I am not

for that purpose.

Q You are in charge of the winery there?

A Yes, sir.

Q And you have seen the product brought into your winery, haven't you?

A Some.

Q And you have noticed that the grapes have been shriveled and dried?

A Some have been shriveled and dried.

Q And that is caused by the lack of moisture in the soil?

A Yes, sir.

Q And if there had been water for irrigation at the proper season, we will say in June and July or the latter part of July, that wouldn't haveoccurred?

A Yes, sir.

Q Do you mean that it would or would not?

A It wouldn't occur if you have the moisture to pull them through; if you give them anything to drink they keep on growing; and if you stop their drink they stop growing.

Q In that season something like 20 or 25 per cent. would be saved in the weight of the grapex crop?

A And sometimes it would run up to 35 per cent.

Q And how many seasons of that kind have you seen in the six years you have been there?

A Well, there are some nearly every year drying up.

Q And if the grape was brought in in a plump condition it would be equally as good if not better for wine?

A It would be better for wine; I admit that.

Q In regard to this water coming from Cucamonga Creek to

the vineyard?

A There is another thing: The United States law does not allow us to use any wine grapes for wine making; you must turn them into brandy.

The Court: Which pays the better?

A It is a sure thing you will not make any brandy out of grapes fit for wine.

Q Which pays better, the brandy or the wine?

A The wine.

Mr. Haskell: Now in regard to the quantity of water taken from the Cucamonga Springs in the last year or two: Did you follow the conduit leading to the vineyard up to its source in the Cucamonga Springs to see whether the water so xxx diverted went to the vineyard?

A I haven't followed the water up; no, sir.

Q As a matter of fact do you know what the quantity of water was, whether it was sufficient to give an irrigating head for the vineyard?

A It wasn't sufficient; if I had enough water I would irrigate; but we haven't enough so far to irrigate.

Q It wasn't enough to give a practical irrigation head?

A No, sir.

Q And wasn't that the reason you didn't use it?

A I wish to state that the last season I made arrangements with the Cucamonga Water Company to take our water above, what little we have, and we take the water down at the winery for the purpose of running the winery. It wasn't very much. I don't know how much it was. That was all done verbally. I told them what little there was-- there was very little.

Mr. McKinley: Q You didn't follow up and you don't know what amount of water was being drawn over there from that ~~xxxx~~ ~~xxxx~~ property, to you, last year or year before?

A I looked at the sand box. That is, where the division is. I didn't followup the creek wash. I just looked at the sand box.

Q What is the age of the young vineyard that you spoke of?

A That was planted by Mr. Somers; I don't know when it was planted.

Q You areable to judge how old it was? You have been acquainted with that property for six years.

A It will be six years next July

Q About how old is that vineyard?

A I think the Berger vineyard was planted out the-year before I came there.

Q And is that all of the young vineyard-- the Berger?

A The Berger and the mission; there is a block of mission.

Q About how much mission in the new vineyard?

A I should judge about 10 or 15 acres or so.

Q And the rest of that vineyard is Berger?

A Yes, sir.

Q Was the mission planted also the year before you came?

A I expect it was; I don't know. You know mission takes longer to come into bearing than Berger

Q Were there any other young grapes there than those?

A No.

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E. T. WRIGHT.

E. T. WRIGHT, being recalled by defendants, testified as follows:

Direct Examination.

Mr. McKinley: Q Mr. Wright, do you know anything about a well in the China garden?

A On the east side, do you mean?

Q Yes, sir.

A ~~Ma~~ I know there is a well there.

Q Do youn know when it was put down?

A I don't think I could give within one year; I think it was about '99.

Q How deep was it?

A That I don't know; I had nothing to do with putting it down and I have only seen it from a distance.

Q Do you know anything about the pumping of it?

A It waspumped for one or two or threeyears. It might have been two. I think it was two.

Q Do you know how much it produced approximately?

A Only by hearsay; I have been told.

Q You never made any investigation there?

A I never measured it. It wasn't pumped after this suit began and most of the pumping was when I had no special interest in it.

Q And you didn't see the product from it at all?

A No, sir.

Q Do you know how much of the seasons it was pumped?

A No, sir; it was pumped to use only on the land of the China gardens; right on the same property there by the Chinamen

Q Are you acquainted with the use of water by the Cucamonga Water Company during one season obtained from the Ontario Power Company?

A No;

Q What if anything do you know with regard to the use of water by the Cucamonga Water Company obtained from what we know as the '96 well?

A They used all the water that was flowing from the '96 well up to '98. That is, if there was any flowing from it in '96 they used it all. It only flowed from 20 to 25 inches or something like that.

Q And continued to use that during the irrigating season up to the time that the water was sold to the San Antonio Water Company?

A I think in '98 Mr. Stowell sent 30 inches to Ontario, and it was taken from the supposed production of that well.

Q Do you know how much was taken that year-- in 1898?

A No more than has been shown by the measurements in the case here.

Q Now you have testified in regard to the wells in the F Tunnel and putting down those wells and the agreement in putting them down: Were those wells ever tested by pumps?

A I don't think in the way of a test, but they were pumped a part of one year by air pressure from the compresser over on the Lone Star tract.

Q What year was that?

A The year they were put down-- in 1900.

Q What was the production?

A The highest measurement we had, including the pumping,

was one measurement of Mr. Stowell's, about 103 inches that he testified to on one particular date.

Q What year?

A 1900.

Q What well was it?

A The West Hellman well; Hellman Well No. 2.

Q That was the one put down by theagreement between the Class B people and the--

A It was one of the two; that was the combined production of the tunnel and the cienegas and the two wells at that time--the 103 inches.

Q What year was that?

A 1900; and it was only one day's measurement; there was never any other measurement as high as that.

Q That was the combined measurement of the Y Tunnel--

A TheY Tunnel, the cienegas below the Y Tunnel and the two wells at the east and west end

Q What were those other wells producing at that time without pumping?

A Something from 60 to 70 inches; thepumping increased it about 50 inches.

Q State whether you ever took up thequestion of pumping those wells and paying for the expenses of the pumping of those wells with plaintiffs or I. W. Hellman as president?

A No, sir; nothing at all; I didn't personally know anything about the expense of pumping because it was mixed up with the Lone Star plant, and simply a pipe was run over there the way I remember now, and it went right into one bill to the Cucamonga Water Company and there was no bill made to Mr.

Hellman for any of it.

Q And you don't know personally of any communication with Mr. I. W. Hellman with reference to that proposition to pump the well?

A I don't remember it.

Q Do you remember the matter being up to the directors' meeting in the Cucamonga Water Company?

A I don't seem to remember anything about it, but I do know it was pumped a little one season by air.

Q My question also covers the other officers of the company. You have no recollection of taking it up with them?

A I don't recollect anything about that.

Q State whether you ever had up the question of the developments which are complained of here in this case with Mr. I. W. Hellman?

Mr. Britt: Objected to. Mr. Hellman occupied no relation-- Mr. McKinley; He was president of the company all the time.

A Do you mean the Sixteenth Street well or the Hankell well?

Q Or any of them, as to the effect on the plaintiffs' properties?

A Yes, sir; I spoke to him about it myself.

Q When did you take that matter up with him?

A I can't give you the date; I did it either once or twice; I should suppose it was about 1901 or 1902, and it might have been even 1903.

Q What did you say to him in regard to it?

A I think I told him that I thought they were taking our water. I said "our water", being a member of the Cucamonga Water Company and being interested in the flow of water on the east side.

Q Which development did you speak to him about?

A I think it referred directly to the Haskell wells more than any others; I don't know whether I mentioned the others or not.

Q And that occurred on more than one occasion?

A I would say twice, but I am not so sure about it. It might have been once .

Q State whether you had any discussion with Mr. Hellman about the Stowell wells on the west side?

A About its interfering--

Q Or about the fact that it was being done.

A At the time it was done Mr. Hellman was president of the company that was paying the bills. They were putting it down the Stowell wells and Stowell was doing it under contract with the Fruit Land Company.

Q And you talked with Mr. Hellman about it more or less?

A He knew of it and I think he was then in San Francisco. But if I saw him we certainly agreed on it. He knew of its being done, if that is what you mean.

Q That is, the development Stowell made?

A It refers to those special developments in '95 when he started to improve the tunnel or to clean out the sandy tunnel or pipe it and bore wells.

Q That is the time the sale was made to the San Antonio Water Company by Stowell and the Fruit Land Company. Did you

have any discussion with Hellman about it?

A Not to my knowledge; it was done by the board of directors. I don't remember speaking to Mr. individually about it at all.

Q It was discussed in the board of directors of which he was president and at times he was present?

Mr. Stevens: Objected to on the ground that it assumes a fact which we believe is not true; that is, that Mr. Hellman at the time of the sale was president of the Fruit Land Company.

Mr. McKinley: I expect to connect that, if it has not been done.

Mr. Stevens: It is pretty easy to get into confusion. It has never been my understanding that Mr. Hellman was a member of the board of directors or officials of the company-- the Cucamonga Fruit Land Company at the time of the sale. Which sale do you mean?

Mr. McKinley: The sale by the Fruit Land Company and Stowell to the San Antonio Water Company.

Mr. Stevens: That was in '99 ?

Mr. McKinley: Yes.

Mr. Stevens: I don't think he signed the deed.

Mr. McKinley: Oh, it was H. W.

A I wouldn't want to give the dates when he was a director The books ought to show it.

Q Wasn't he a director all the time?

A I don't know; Mr. H. W. Hellman went on the board, and whether I. W. went off I don't know; but the books will show that.

Mr. Stevens: I have an idea that at the time spoken of he was not a member of the board of directors. Of course, the books would be the best evidence.

The Court: You had better have recourse to the books.

Q State whether that sale was discussed by you with I. W. Hellman at any time or in his presence?

Mr. Stevens: Objected to as immaterial.

Mr. McKinley: I will withdraw the question. State whether you ever discussed with I. W. Hellman or whether there was any discussion in his presence, of the proposed sale of the Cucamonga Fruit Land Company to the San Antonio Water Company of 130 inches of water described in the deed introduced here between the Cucamonga Fruit Land Company to the San Antonio Water Company?

Mr. Britt: Objected to as irrelevant, immaterial and hearsay.

The Court: Overruled. Plaintiffs except.

A I couldn't say; I know he was a director of the company at that time and knew of the sale, but I don't remember talking to him myself about it.

Mr. Britt: We ask that the statement of the witness that he knew of the sale be stricken out as not responsive; also, that he cannot know except by communication whether he knew it or not.

The Court: Stricken out.

Q State whether you know that he had knowledge or not.

A I know he knew of the sale.

Q How do you know?

A I can't tell you how I know, except that he was a heavy stockholder, and Stowell went to San Francisco and want-

ed to see him; but I didn't go myself.

Mr. Britt; I ask that that be stricken out as the expression of an opinion by the witness.

The Court: Stricken out.

Q You were secretary of the Cucamonga Fruit Land Company?

A At that time I was

Q State whether you know of the proceeds of the sale?

A There were 80 bonds delivered at one time-- thousand-dollar bonds-- and they were deposited in the Farmers & Merchants Bank to thecredit of the Cucamonga Fruit Land Company.

Q What disposition did the Cucamonga Fruit Land Company eventually make of them?

A They paid their debt to the bank with part of them, and I don't know what became of the balance.

Q Do you know whether they were divided among the stockholders or not?

A Not by any resolution that I know of.

Q Were there any other proceeds of that sale that you know the disposition of?

A I don't know when or how thelast $50,000 was paid.

Q State whetheryou had any discussion with I. W. Hellman with reference to the action of McPherson against the Cucamonga Fruit Land Company and others, by which it was sought to set aside that sale?

Mr. Britt: Objected to as immaterial and incompetent to any issue in this case.

TheCourt: Objection overruled.

A I don't remember of any.

Q To refresh your recollection, state whether you didn't

have correspondence with Mr. Hellman in regard to that.

Mr. Britt: Thesame objection.

The Court; Overruled. Plaintiff excepts.

A I might have had but I don't remember.

The Court: Of course, if this is not connected by showing that it was brought home to the corporation, it will be stricken out.

Q State whether you had any letter from Mr. Hellman in regard to the developments that were made, whether they affected the interest of the Cucamonga Water Company.

Mr. Britt: We have no objection to a question whether he had a letter on a certain subject; but to ask him whether it affected etc., that is an inquiry that is asking for a conclusion or opinion of the witness.

The Court: I suppose he means dealing with that subject.

Mr.McKinley: I am simply calling attention to the character of the correspondence.

The Court: I understand it is for thepurpose of identification and not as proof of the fact.

Mr. Britt: Then there is no objection to it.

A I don't remember now anything about it. I can't call to mind; I haven't thoughtof it for a good many months.

Cross Examination.

Mr. Britt: Q That China well was a well, as I understand it, put down in 1900?

A It might have been '99; it was one of those two years, r right in there.

Q Is it shown on the plat plaintiffs' exhibit 1?

A Well M, 1899. Pump elevation 1412.

Q And it was used to irrigate some garden land?

A Right adjoining it and just below it.

Q About how much?

A Possibly 15 and perhaps as high as 25 acres on the same property.

Q Was that the only source of supply for that garden?

A Yes, sir; they weren't allowed to have any water from the Y Tunnel which would have been high enough, and there was no other water.

Q Do you know what became of the well?

A It is still there.

Q What became of the water in it?

A It was always a pumped well, and they haven't pumped for the last five or six years. There is no water flowing.

Q Do you know what its depth was?

A I do not

Q What was the nature of theland on which thewater was used as to being dry land or moist land?

A A good share of it has been moist land prior to this, but it was drying up in '99 and 1900 and 1901.

Q What became of it? Did the drying process continue?

A Yes, sir; it is all cultivated now. It is part of the land between the Y Tunnel and the Creek.

Q Is it any drier now than it was at that time?

A I meant than it was 9 or 10 years ago.

A. T. Leake.

A. T. Leake, being recalled for defendants, testified as follows:

Direct examination.

Mr. McKinley: Q With reference to the relations between the Ontario Power Company and the San Antonio Water Company will you state what agreement there is between those companies as to the disposition of that water and how during the years since 1902 it has been disposed of between them?

A All the waters of the Ontario Power Company--

Mr. Britt: May I inquire whether there is a written contract?

Mr. McKinley: He has already stated there was not. Mr. Shepherd said there was a resolution which don't constitute anything--

The Court: Is thereresolution in evidence?

Mr. McKinley: Yes, sir.

Q There isn't any writing except that resolution, I understand?

A None that I know of.

Q Now proceed and state.

A The waters of the Ontario Power Company that are not used by the company itself or for domestic purposes are rented to the San Antonio Water Company-- continuous rental.

Q At the rate fixed in the resolution?

A Yes, sir.

Q What is your system of determining the rent to be paid?

A The amount of water charged? I don't understand the question.

Q What is your system of determining the amount of rent to be paid between the two companies? How do you conduct that business?

A We ascertain the amount of water belonging to the Ontario Power Company flowing from the Lady Tunnel, the amount of water belonging to the Ontario Power Company in the San Antonio Canyon, and from their sum total we subtract the amount of water used by the Ontario Power Company in supplying its domestic water users, and the balance or amount remaining is charged to the San Antonio Water Company at the rate of $100 per inch per annum.

Q You have stated as to the number of consumers the Ontario Power Company has for domestic purposes for the past two years. But how many had the Ontario Power Company in 1902?

A I will have to refer to my memorandum; I have no record of the number of domestic water users in 1902.

Q About how many was it as nearly as you can remember?

A Some time during 1902 the Ontario Power Company began furnishing domestic water to the ranchers, but it was a gradual process through 1902, and it wasn't complete till late in the fall of 1902. Previous to that date they had been using cisterns and drawing water from the general supply of the San Antonio Water Company.

Q If you have any record as to the subsequent years, state it.

A The first year when we have any record is in 1904: we had 311 accounts or more in 1904 with domestic water users and we had about the same number in 1905, and some slight addition in 1906; and 1907, 2[illegible]; 1908, 270. These figures

evidently don't show the number of users; but it is quite evident there were some more in those earlier years than I have stated.

Q Mr. Locke, are you acquainted with the value of the lands, and especially lands planted to citrus fruits, in Ontario?

A Yes, sir.

Q About what is the value of the lands which have been described here in your presence and which you are familiar with under the system of the San Antonio Water Company and planted in citrus fruits?

A I think the ranjero's figures as to the number of acres was 4670. I should say that at a low estimate the value of those lands at the present time would be $4,670,000.

Q You are acquainted with the values also of the other properties on which the water of the San Antonio Water Company is used in the city of Ontario?

A Yes, sir.

Q About what is the value of that property?

The Court: Does that mean inclusive of the citrus bearing land?

Mr. Britt: What other lands do you mean?

The Court: There is testimony that some of the lands are notin citrus fruits.

Mr. McKinley: Yes; to which water is furnished for domestic purposes. There might be an orange tree in the back of a lot or two or three in front of it.

Mr. Britt; Is thepurpose to show thevalue of those lands or property occupied by people who receive water for domestic

purposes?

Mr McKinley: For domestic purposes. It is town lots and such as that, under the system, in the city of Ontario.

The Court: I suppose the term "domestic use" as suggested by Judge McKinley applies to the irrigation of lawns and an occasional tree, as apart from the commercial irrigation of an orange grove.

Mr. Britt: I understand that the question calls for a statement of all the property in this district called Ontario and Upland, other than the irrigated ranches, business blocks and railroad tracks.

Mr. McKinley: Yes; everything.

Mr. Britt: Objected to as irrelevant and immaterial.

Mr. McKinley: I will make an exception of the railroad tracks.

Mr. Britt: We object to the question still.

The Court: The objection is overruled. Plaintiffs except.

A Not including the railway tracks, it is my opinion that that 160 acres comprising the town of Ontario on which the domestic water is used is valued at something over $1,000,000

The Court: It is not a question what it is valued at; what is it worth?

A It is worth over a million dollars.

Mr. McKinley: Q With reference to the property in the city of Upland supplied by the Upland Water Company which holds stock, what in your opinion is the value of that property?

Mr. Stevens: The same objection.

The Court: Objection overruled. Plaintiffs except.

A That is worth over $1,000,000.00.

Q. What is the acreage of that property about?

A. It is about 275 acres.

The Court: But much of that is embraced in the acreage given of crops?

A. Not very much of it. Of late the town has expanded on to the wild lands east, taking in some acres that are not in orange groves.

Q. About what is the population of the city of Ontario?

A. It has grown so rapidly it is difficult to make an estimate at this time; I will say in my opinion over 3000.

Q. About what is the population of the city of Uplands?

A. About 2000.

Q. And about what is the population of the entire colony, meaning thereby the properties supplied by all of these supplies of water, including the cities.

A. It is over 5000.

Q. You referred to the growth of the city: Had that growth been continuous for some years past?

A. Yes, sir.

Q. During how many years?

A. Especially during the last three years, there has been a steady growth continually for quite a number of years.

Q. You are familiar also with all these matters which were testified to in regard to the matters of value of property and so on in the year 1900?

A. Yes.

Q. About what was the value of all of this property about which you have testified, covering Uplands and Ontario and all these lands in the year 1900?

Mr. Britt: The same objection which we made to the value of the irrigated property a while ago.

The Court: I suppose the question ought to be limited to the lands benefited by the use of the water.

Mr. McKinley: I will limit it to the land benefited by the use of the water from that system.

Mr. Britt: I think that is still too broad in the sense in which the testimony might be deemed relevant. Those which receive a direct benefit by irrigation, all right; but those which receive indirect benefit, it seems to us, should not be included in the inquiry.

Mr. McKinley: I mean the lands under the San Antonio Water Company's system.

The Court: Take residence property, for instance: that property certainly is enhanced in value by the supply of domestic water to it, particularly when that is considered as covering the irrigation of ~~xxxx~~ lawns and ornamental shrubbery. I think it ought to be limited to such property as is brought directly under the beneficial use of water.

Mr. Haskell: The question is directed to the increased value of the property without reference to its being induced by putting more water on it--

The Court: I think you have a right on cross examination to pick it to pieces if you desire.

Mr. Britt: I don't think it is of sufficient importance. Exception.

A The irrigated lands--

Q The whole thing together, is the question.

A In 1900 they were less than half of the value that they

are at the present time.

Q. About what was the population of that territory at that time in 1900?

A. There was three quarters less population in Upland in 1900 than at the present time. This is an estimate. And one half less in Ontario, or nearly so.

Q. And on the other land, outside of Ontario and Upland, that is under the system?

A. About one-half less.

Q. About what would you put the figures at? Of course, it is a very rough estimate-- for 1900?

A. I wouldn't be able to differentiate the population of the irrigated tract from that of the town property.

Q. I want your estimate of the total of all this property under the water of the San Antonio Water Company,--just a rough estimate of what the population was in 1900.

A. I think Upland about 700 or 800 and Ontario about 1400.

Q. And the other portion how much?

A. It is difficult to estimate the outlying regions.

Q. About what?

A. About 400.

Q. Are you able to make any more definite statement with regard to the amount of waters taken from the 16th Street wells and the times you pumped them than you did before, beginning with the Frankish and Stams well, in 1898?

A. I have looked into the records in regard to the pumping of the 16th Street well no. 1 or 3 in '98--

Mr. Britt: If there is a record let's have it.

Q Have you the record here?

A The only record I have been able to find is in regard to the minutes on the matter in the minute book, and also some of the bills referring to the work done on that well, indicating that the well was operated from some time--

Mr. Haskell. We object to what the minutes indicate unless the minutes are produced here.

The Court: Q Have you got the minutes here?

A Yes.

Q Get them. Get everything you have there. State with regard to the pumping, calling attention to the record so that counsel can see them.

Mr. Britt: Let us see the record. In whose handwriting is the record, Mr. Leske?

A Mr Shepherd's.

Q Is this the regular minute book of the San Antonio Water Company?

A Yes, sir.

Q Do you know who her those entries were made at about the time of the things which they purport to record?

A There is no question but what they were.

Q All right; go ahead.

A (Reading) Ontario, Cal., April 12, 1898. Special meeting of the Board of Directors of San Antonio Water Company, held on above written date. Extract from minutes. On receiving written consent from Messrs Frankish and Stamm to pump water from their well on 16th Street the committee on water authorized to make the necessary repairs and improvements needed on same.

Ontario, Cal., April 29, 1898.

Special called meeting of the board of directors of the San Antonio Water Company.

Extract from minutes.

The committee on pipe lines recommended be at once laid to 16th Street well and a pumping plant purchased to be used at said well.

The Court: Which one of the present 16th Street wells was in contemplation?

A No. 3. (Continuing reading) The report was adopted and the committee authorized to proceed with the work.

Ontario Cal., December 19, 1896.

Regular monthly meeting of the board of directors of San Antonio Water Company, held on the above written date at 2 p.m. at its office. On motion of . . Hawkinson the secretary was authorized to contract with . C. Adams for sinking the 16th Street shaft to water for $2.00 per foot.

Here the Court takes a recess until half past one o'clock.

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Afternoon Session 1:30 p.m.

J. C. Wright.

J. C. Wright, a witness called by defendant, being first duly sworn, testified as follows:

Direct Examination.

Mr McKinley, Q. Where do you reside?

A Ontario.

Q How long have you resided there?

A Well, there and the vicinity about 25 years.

Q What is your business?

A Real estate and ranching.

Q Have you ever been connected with the vineyard and winery business in any way?

A Well, yes, a little at times.

Q In what way? Just state fully.

A Well, I suppose it is not necessary to go back any great length of time.

Q Anything that might show your knowledge or connection with grapes and vineyards?

A I once had charge of a winery at Fresno for one season.

Q And with regard to vineyards - have you ever had vineyards - -

A No.

Q Or had charge of one?

A Yes, I have had charge of vineyards, yes.

Q During what periods?

A Well, the last four years, within the last four years.

Q What have you done in that respect? In what way have you had charge of a vineyard?

A I have had all the work done and superintended it, the pruning and the harvesting; in fact all the work pertaining to a vineyard.

Q Are you acquainted with what is known as the Hellman Vineyard at Cucamonga?

A I am.

Q How long have you known that vineyard?

A Twenty odd years.

Q Have you observed generally the effect of irrigation and non-irriation upon vineyards?

A I think so; yes.

Q What is your opinion as to whether the irrigation of vineyards is necessary or beneficial or not?

A Well, I think - my opinion is that in this locality, or in that locality,- I might say in Southern California - that as a financial proposition it is better without irrigation.

Q You have observed the Hellman vineyard both at the period when it was being irrigated and at a subsequent period when it was not?

A Yes, sir.

Q What in your opinion is the effect upon the vineyard of ceasing to irrigate it?

A Well, to explain, while I am in the real estate business, I am showing people, and showing them lands for vineyards, trying to sell them lands, and I take them to this vineyard as a sample - -

Q Well, your opinion, just state generally what your opinion is?

Mr Britt: I ask that that answer be stricken out as not responsive to the question.

Mr McKinley: Very well; no objection to its being stricken out.

(Last question read to witness.)

A Well, it is my opinion that it has been as well since it has quit irrigating, as it was during the irrigating time.

CROSS EXAMINATION.

Mr Britt, Q You say that you had charge of a vineyard or were engaged in the vineyard business in Fresno?

A I had charge of a winery there, one season; not a vineyard; well, I did, too, for a very limited time; I had charge of a vineyard near there, in one of the colonies near Fresno.

Q Is it usual to irrigate vineyards near Fresno, in that part of thecountry?

A Yes, sir.

Q Universally so isn't it?

A Yes, sir; was at that time.

Q How long since was that?

A Well, it is about 24 or 25 years, 25 I guess, just before I came to Southern California.

Q Doesn't it continue to be the custom there to irrigate vineyards?

A I think it is; I am not positive.

Q Did you ever pay any attention to the tonnage of grapes produced by this Cucamonga vineyard, to which your attention has been directed, during the time when there was water

to irrigate it? Do you know what the crops were?

A Well, yes.

Q Do you know what the tonnage was?

A No, I don't know what the tonnage was, but I know what the crop looked like.

Q Did you go into the vineyard and examine it?

A Yes.

Q When?

A Oh, many times.

Q Who was carrying it on then?

A Years ago, a man named Summers was in charge of it then.

Q You were not concerned with it, in the actual working or superintendence, were you?

A No, sir.

Q Summers was?

A Yes, sir.

Q Have you paid any attention to the tonnage of grapes produced by that vineyard, since the water dried up so that it was no longer irrigated?

A Yes, sir.

Q Weighed the grapes?

A No, sir.

Q Were you present when they were weighed?

A No, sir.

Q Ever at all?

A No, sir.

Q Are you a stockholder of the San Antonio Water Company?

A I have a few shares of stock in the Company, yes.

Q Do you receive water from that company for the purpo-

ses of irrigation?

A Yes, sir.

Q What do you irrigate that sort of land?

A Orange orchard.

Q Do you think your orange orchard would be as well off without irrigation as it is with it?

A No, sir.

Q What sort of land is this where the Cucamonga Vineyard is situated, is it good land?

A I consider it so.

Q Is it good for oranges?

A I wouldn't consider it the best orange land.

Q It may not be the best but is it suitable for oranges?

A I imagine oranges would do fairly well on it.

Mr Haskell, Q How long have you been in the real estate business?

A Well, indirectly 15 years. Been conducting an office for three years.

Q When you first began that business, your business was confined principally to the selling of lands about Ontario for orange purposes was it not?

A Not entirely no; I was selling a good deal of the land for grapes, peaches and apricots.

Q In and about Cucamonga?

A Well, yes, the country south of Cucamonga and in that vicinity there.

Q When did you first begin to visit this vineyard, belonging to the plaintiffs in this action, so as to get into

and over and through it, so as to note it carefully?

A Oh, I have visited it quite often for the last twenty odd years.

The Court, Q You think then in regard to this vineyard as I gain from your testimony, whether you irrigate it or not, this vineyard would be about the same?

A That is my opinion, Judge.

Mr Britt, Q Why do you think that vineyards here in Southern California ought not to be irrigated? What is the difference between the growth of grapes and vines here in Southern California, and similar growth in Fresno?

A I think that the crop won't be so sweet, were it irrigated, as it would be without the irrigating water; and from the fact that the vines grow well and produce well, I think that the grapes are better than they are if they were irrigated - on irrigated grapes.

Q Are not raisins produced in vast quantities from the Fresno vineyards?

A Yes, sir.

Q And isn't the sweetness of the crop one of the important qualities for the production of raisins?

A Why certainly.

Q And irrigation is relied on to produce the raisin grape in Fresno?

A It was in early days; I don't know what it is today.

The Court: There are several thousand acres of vineyard are there not, immediately south and east of this particular vineyard?

A Yes, sir.

Q Do you know if any of that is irrigated or not?

A There is very little of it if any; I think none of it is irrigated.

Mr Britt, Q They have not any water to irrigate those vineyards that lie off to the south on those sandy lands, have they?

A Some of them have; yes, sir.

Q What do they do with it?

A Simply don't use it.

Q Who has water there to irrigate with in any quantity and doesn't use it?

A Well, I am told - well, Stearns' vineyard has a good well; and I am not positive but I feel quite positive that they don't use it on any part of the vineyard.

Q Do you know how much water is pumped from that well?

A Not now, I don't know; I know about approximately what it had when it was first put down, when the well was first put down.

Q Do you know that or from what somebody told you?

A From what somebody told me.

Q From what somebody told you?

A Yes, I didn't see it.

Q Then you don't know anything about the production of the well from any observation of your own?

A No.

Q Anybody else whose control of water you know of personally?

A No, I don't know.

Mr Haskell, Q Are you not acquainted with the vineyards in

and around Etiwanda?

A Not very much; a little but not very much.

Q Have you been through there?

A Yes, sir.

Q You know those vineyards are all irrigated do you not?

A Well, I know that some of them are irrigated.

Q Don't you know as a matterof fact that the tonnage out of those vineyards is two or three times that it is out of any non-irrigated vineyards in that country?

A No, I don't know that.

Q Do you know of any raisin vineyard any where in that section of country that is not irrigated where water can be had?

A No.

Q Don't you know in the last twenty years many times the Mission grapes have been dried, and sold as dried grapes?

A I don't know; I have heard they have been some.

Mr McKinley: I move to strike out the answer as not responsive.

Q Don't you know as a matter of fact that they are valuable as a dried grape in the market?

A That they are valuable?

Q That the Mission grape when cured and dried is a valuable product in the market?

A Why, yes; they are feeding them to the horses in Ontario now; they are selling them for horse feed, and they are certainly valuable for that.

Q Even for that purpose they go for about two cents a pound don't they?

A Well, I didn't buy any; I don't know what they sell for.

Q Don't you know they sell for two cents a pound for that purpose?

A No, I don't because I never asked the price of them.

Q Do you know what the quality was that was being so fed?

A No, sir.

Q Do you know what the price of wheat is and corn?

A Not at this present time. No.

Q Did you ever cultivate personally a vineyard yourself?

A Well, I had my men do it.

Q How large a vineyard?

A Five acres.

Q Is that the extent of your cultivation of vineyards?

A That is in southern California; yes.

Q And where is that located, that particular five acres?

A Near Ontario.

Q On what kind of soil?

A It is a sandy loam.

Q What kind of soil is the Cucamonga Vineyard located on?

A Well, I suppose you would call it a loam; it has perhaps a little clay mixed with part of it.

Q Isn't it what is commonly known in Southern California as a clay soil?

A Part of it has a little clay in it, yes.

Q From your knowledge of the lands about Cucamonga are not the vines for wine purposes more productive and more successful on the light loamy soil, or sandy soil, than they are on the heavier soil without irrigation? Don't you know that to be a fact?

A. Not at the Cucamonga vineyard, no.

Q. I don't say at the Cucamonga vineyard; I say in that Cucamonga country?

A. Without irrigation or with irrigation do you mean?

Q. Yes?

A. I have no means of knowing, because the Cucamonga vineyard was at one time irrigated, and I think that a vineyard once begun to be irrigated, perhaps don't produce as well, as one that never had been irrigated; in other words I think if the Cucamonga vineyard never had been irrigated that it would have been better than if it was irrigated and then stopped irrigating.

Q. Now, you say you think so - You are departing from the question.

Mr McKinley: If it is not responsive we move to strike out the answer; we would like to have it stricken out if it is not responsive to the question.

Q. Don't you know as a matter of fact that in those vineyards around Cucamonga, where there is sand on top, even a foot or two, that it acts as a mulch and preserves the moisture in the ground?

A. I think anything that you use as a mulch on any soil preserves the moisture.

Q. And that is what happens in those dry vineyards about Cucamonga isn't it? The fine sand on top acts as a mulch, and holds the moisture - preserves it from evaporation?

A. Not necessarily fine sand; fine soil of any kind, let it be clay or any other kind of soil.

Q. Isn't that a fact, that the dry sand on top preserves the moisture in those vineyards?

A. It is a fact.

Q. Isn't it a fact that in the Cucamonga Vineyard it is a clay soil a great deal of it?

A. I think there is some clay in the land at Cucamonga, especially at the east side.

Q. Exactly. Now, can you pulverize that clay soil, without rooting up the roots of the vines themselves to a depth of a foot or two, and get close enough to the vine so as to preserve that moisture, in the same or equal degree that it is already preserved by nature in those loose soils?

A. I hardly know how to answer that - a foot or two.

Mr McKinley, Q. Do you know the Turner place across from the vineyard?

A. Yes, sir.

Q. How long have you known that place?

A. Well, I have known it for a good many years; I don't know how many years; I have never been in it.

Q. Have you passed it frequently and observed it and its conditions?

A. I have passed it frequently; yes, sir; I don't know that I ever made any special observation of it.

Q. You have not observed its condition particularly then?

A. No.

W. T. LEEKE

W. T. Leeke, previously sworn, recalled for defendants, testified as follows:

Direct Examination.

Mr McKinley, Q You were reading the minutes when you were last on the stand.

A I had finished my report from the minutes; I have some bills bearing on the same thing.

Q In connection with the same subject?

A Yes, sir.

Q What do those bills cover?

A They cover pumping and sinking on 16th street well, during the month of November, 1898.

Q That is the Frankish well?

A Yes, sir.

Mr Britt: Well number 3, I suppose?

A Number 3; yes, sir.

Mr McKinley: Was the pumping and sinking going on at the same time?

A Yes, that was our practice in sinking those wells.

Q That was the season of - -

A 1898.

Q That amount of water was being taken in that season from that well?

A About thirty inches.

Q And youm continued to take that water from that time on in the irrigating season?

A Yes, sir; up to some time in December.

Q Well, you may proceed and explain as to the gates there?

A October 18, 1898, there is a bill of J. M. Robinson, to 11½ days work on 16th street well, sinking 2.50 a day; 5 day's work on pump equipment, $8.75.

Q Well, you fix by those bills the dates to you?

A Yes, sir.

Mr Britt: Let us know what the bills are or else let us see them.

Mr McKinley: Certainly.

A October 17, 1898, R. E. Whittaker, to 7 days work on 16th street wells, sinking at $1.75, $12.25. October 17, 1898, 12 days work on 16th street well, sinking, $2.50 a day, $30.00, Ed McManus; September 30, 1898, 7 days work at 16th street well sinking $12.25, to Mark G. Bradford; September 30, 1898, William Roby, 7 days work 16th street wells, $12.25.

Q During the season of 1899 and the subsequent seasons you continued to take water from these wells I understood you?

A Yes, sir.

Q And in the amounts you have already detailed?

A Well, in 1899 30 inches, and the succeeding year we improved it largely.

Q With regard to well number 14, or our number 9, I think you have some memorandum in regard to giving definite information in regard to pumping that?

A Yes, sir; I refrshed my mind from the records, and I find that we placed a new siphon in that well in October, 1903; a 12 inch siphon, enlarging the capacity of the pipe and we attached and placed in that well a large pump - ten

inch pump if I remember correctly - and attached the discharge pipe to this siphon and began pumping the well.

Q. Can you givex the dates that pumping covered?

A. The pumping covered, with the exception of a couple of days for rearranging the suction, covered from October 16, 1903, to February 16, 1904. I previously stated that the connection of the lower level of the tunnel to the well did not at that time increase the flow from the well, which is true, from the fact that the pump was working when we made that connection and we were actually pumping more water through the 12 inch siphon than the tunnel itself would produce on the level of the well; so that my statement in regard to that was correct. The action was of the pump forcing more water through than otherwise had passed hitherto through that siphon into the main tunnel and produced a very large flow of water, an increase over the previous flow of about 50 inches; I am speaking from memory now; I remember the conditions very well in regard to the increased flow.

Q. What had the previous flow been up to that time?

A. The previous flow from that siphon, during the years that we had operated it, had been, according to the amount which we sent to Chippewa, and the amount which we turned into our measuring box at Ontario, about 250 inches.

Q. Now, you speak of the water sent to Chippewa: and I think you said you furnished 85 inches to Chippewa, under arrangement made by the Ontario Power Company, before your company got control of it?

A. Yes, we furnished that for nine months, commencing about the first of April, and it had been furnished by the

Ontario Power Company for a very short time before I took charge of the company, but it was continued through up to about December.

Q. Of what year?

A. 1902; and we also had flowing from off our tract all the water that summer that our pipe would carry from the mouth of the Cadiz tunnel to Ontario - that is all our original pipe would carry - to the Ontario box at Upland.

Q. Was that well ever pumped after the 16th of February, 1904?

A. No, sir.

Cross Examination.

Mr Britt: It is our purpose to cross-examine Mr Locke, if the Court will permit this procedure, only upon subjects only connection with his evidence now given; Mr Waters designed to conduct thegeneral cross examination; he being absent today I desire that may be deferred until his return.

Mr Britt, Q. Then to commence at the first of what you testified about today, you spoke of the arrangement between the San Antonio Water Company and the Ontario Power Company. for the use of the water, and that there was a renting of water by one company to the other. Could you lay hands conveniently now on that resolution to which you made reference on the subject of the leasing of the water?

A. If Mr Shepherd is here he might be able to find it for me.

Q. I read the resolution as it appears at page 2701 of the

reporter's transcript in the present case, and the same purports to have been passed July 13, 1903 and proceeds as follows : (Reads resolution copied from minutes as contained in transcript at page 2701.) That is the resolution to which you referred is it?

A Yes, sir.

Q Was there any resolution of the board of directors of the Ontario Power Company on the same subject?

A I think not; the Ontario Power Company had vested in me as manager full power to do their work for them - their business generally.

Q There was not anything but this resolution of the board of directors evidencing any arrangement between you and the board of directors of the San Antonio Water Company was there?

A Nothing else that I remember.

Q Now, previous to that time, this was passed July 13 (15) 1903,- the stock of the Ontario Power Company had been acquired by the San Antonio Water Company in May 1902: during that period of a year or such a matter intervening - something over a year - what was the course of dealing between the two companies relative to the domestic water, which is referred to here in this resolution? Who furnished the domestic water during that time?

A It is my recollection that the Ontario Power Company began furnishing domestic water in the Summer of 1902; and later about the time this resolution was passed, the Power Company decided to put meters on the consumers - on the lines of consumers of water - and charge them a metered rate.

previous to that time I don't remember what the rates were.

Q. You don't remember what the arrangement or understanding was between the two companies, so you, during that period of something over a year, between May, 1902 and July, 1903?

A. I don't remember exactly how the matter was adjusted but I understood -

Q. All right; if you don't remember we will pass to something else: This subject of domestic water supplied under that resolution, although we have had considerable testimony about it, but to my mind at any rate it is considerably confused: Will you state now what was the domestic water referred to in this resolution? It is recited that the Ontario Power Company is to supply domestic water on and after July 15 - what domestic water?

A. Domestic water supplied to the people in the Colony, residing outside of the regular City domestic pipe line.

Q. Well, it does not say so here: The resolution says "domestic water" without restricting it to any class of consumers or to any locality. Had not the San Antonio Water Company been engaged in supplying domestic water before May, 1902?

A. The outlying ranches had a system of cisterns along the pipe lines, and each rancher would fill a cistern; that is many of them having cisterns, would fill the cistern from the irrigating water, and with a pipe attached would supply his residence with domestic water from that source; I have no recollection of the San Antonio Water Company ever furnishing domestic water at rates, or on charges.

Q You spoke just now in the answer you gave of outside ranchers: What do you mean by outside ranchers?

A Ranchers outside of the Towns of Ontario and Upland.

Q Were both those incorporated towns in 1902?

A Ontario was incorporated to the extent of 160 acres; Upland was not incorporated.

Q Then did the San Antonio Water Company supply any domestic water in the City of Ontario in 1902?

A The City of Ontario was a stockholder in the San Antonio Water Company, and water pertaining to the stock held by that city was turned into the conduit of the City of Ontario; simply the water pertaining to their stock was turned over to them, the same as any other stockholder.

Q That does not answer the question, but probably we will get an answer in the next question. Did the City of Ontario supply out of what it received out of the pipes of the San Antonio Water Company water to its inhabitants for domestic purposes?

A It did.

Q And has that continued until the present time?

A Yes, sir.

Q Then the San Antonio Water Company does not now and never has supplied domestic water in the City of Ontario any further than that the water which it delivers to the City of Ontario as a stockholder is by the City retailed to its inhabitants for domestic purposes?

A That is true.

Q Now, I begin to see. And the people who lived in the Ontario district outside of the City of Ontario were accus-

1 tomed to receive from the San Antonio Water Company in
2 1902, water for domestic purposes, which they tanked, from
3 their irrigation supply, is that it?
4 A That is true; yes, sir.
5 Q And at Upland, the Town of Upland, how was the town
6 supplied in 1902 for domestic purposes?
7 A The Land and Water Company, that originally owned the
8 majority of the town lots there, had a water system of
9 their own; theywere stockholders of the San Antonio Wa-
10 ter Company, and we turned the water pertaining to their
11 stock into their reservoir north of Upland for their use
12 in supplying domestic water.
13 Q Then there were people who were outside of their sys-
14 tem in the Upland district or neighborhood to whom the
15 San Antonio Water Company also furnished domestic water,
16 were there?
17 A Not at that date.
18 Q Not in 1902?
19 A No, sir; not except as irrigating water; the stockhol-
20 ders could use it for domestic water if they chose to do so,
21 if they had any facilities for doing it.
22 Q Did those people also, who were outside of the Town of
23 Upland, who lived in the neighborhood, receive water from
24 the San Antonio Water Company which they tanked or put in
25 cisterns for domestic use, out of their irrigation supply,
26 the same as did the like class of people at Ontario?
27 A Yes, sir.
28 Q And the San Antonio Water Company then, has never sup-
29 plied domestic water in the Town of Upland, that is directly?

A Not directly; they have not been vendors of domestic water.

Q Then following the acquisition of the stock of the Ontario Power Company by the San Antonio Water Company, in May, 1902, and until the passage of this resolution July 13, 1903, did the same arrangement prevail or continue about supplying the inhabitants with domestic water as that which you have described as having existed in 1902?

A You refer to the Towns of Upland and Ontario?

Q Yes, first?

A The same conditions applied.

Q And what arrangement, if any, existed, about supplying these outside ranches, not in the Town of Ontario and not in the Town of Upland?

A The Ontario Power Company began about that time began to encourage the use of their water for domestic purposes, outside of those towns.

Q Began about what time?

A Sometime in 1902.

Q Did the Ontario Power Company ever supply domestic water there previous to May, 1902?

A The Ontario Power Company?

Q The Ontario Power Company, previous to May, 1902?

A I don't know what they supplied on the south side and in Ontario. There was a company supplying water ~~xxxxxx~~ for the south side of Ontario, and I think Mr Stowell was interested in that, and later the Sierra Power Company; I don't know where they got their water at this time, whether from the Ontario Power Company or from Cucamonga

or where it came from.

Q So far as you know the Ontario Power Company never supplied any domestic water in either of these localities prior to May, 1902?

A That is true.

Q And before May, 1902, was it supplying water for irrigation?

A Not to my knowledge.

Q If it had been you as manager of the San Antonio Water Company would have known about it, wouldn't you?

A Well, I wouldn't know what Stowell was doing on his North Ontario tract, or on the south side tract; I wouldn't know a thing about it. That was not under my jursidiction.

Q I am speaking about the community generally of Ontario and Upland,- if there had been any rival company or any other company coming in there to supply water for irrigation it would have been a matter that would have attracted your attention, wouldn't it?

A Yes, that is true.

Q Your statement was a few moments ago that soon after May, 1902, the Ontario Power Company began to encourage the use of domestic water from its supply?

A Yes.

Q In what way did it encourage such use? Now, you were the manager of it at that time were you not?

A Yes.

Q What did you do to encourage that use?

A We stated to the irrigators that it would be better for

them, that they would have purer water, to connect with the sand-boxes of the San Antonio Water Company, through which the Ontario Power Company water was passing, than to simply impound their water in cisterns and allow it to stand through the month, or through the period of irrigation - usually a month - sometimes in those days 45 days - that it would be better for them, because in this case they would obtain running water, living water, rather than water that had been impounded in a cistern; and that idea became very popular through the Colony, until quite soon the cisterns were no longer used, that is when the larger part of them.

Q Was there any pipes laid then for the purpose of distributing that purer water, or did you merely use the pipes which had previously been in use?

A In most instances the consumers laid pipes themselves from the houses to the nearest sand-box that would give sufficient pressure.

Q That water was drawn and taken through the irrigating pipes which the San Antonio Water Company theyhad laid throughout the district?

A Yes, sir.

Q And when the Ontario Power Company as you say was encouraging this use of artesian water, it was encouraging the use of water drawn through the San Antonio Water Company pipes?

A Yes, under a lease; the Ontario Power Company leased from the San Antonio Water Company the surplus capacity of their pipes, that we, the Ontario Power Company, might pass

water through those pipes for the benefit of our domestic customers.

Q Now, previous to May, 1902, the San Antonio Water Company had been deriving no revenue from this domestic water which was distributed here and there to the people who put it in cisterns or in tanks, had it?

A No revenue; it was part of the water owned by the people.

Q After 1902, or after May, 1902, was there any plan arranged or devised by which a charge was made for the water furnished for domestic purposes from the pipes directly and by the Ontario Power Company?

A A charge was made; a schedule of prices was made; I don't recollect what they were; I don't remember what they were.

Q I don't care anything about what they amounted to: I want to know if a charge was made?

A Well, we began at once charging for the use of the water.

Q At what time did you begin that system or that plan of charging people for domestic water?

A I think it was sometime in 1902.

Q Subsequently to May 1902?

A Yes, sir.

Q Were the rates fixed by the Town authorities, City authorities of Ontario?

A The City authorities of Ontario have always had charge of the water which they distributed to their people; we have nothing to do with it, either one of our companies.

Q Were any rates fixed by the Board of Supervisors of San Bernardino County?

A No, sir.,

A Well, the rates by this resolution were fixed at 40 cents per thousand cubic feet with a discount of 10 percent. That referred to the water supplied for domestic purposes I suppose?

A Yes, sir.

Q Now, previous to the passage of this resolution in July had there been any fixed schedule of rates at all?

A My recollection is that there was a flat rate charged for the monthly rate; there was no rate per cubic foot, because early in the vending of this water we had no meters.

Q Then the evidence was that this arrangement ran from June, 1903, to November 1, 1908? The arrangement I speak of is the arrangement provided for in this resolution?

A Yes, sir.

Q Now, you stated that you ascertained the amount of the water of the Ontario Power Company in the Sadie tunnel, and in I believe the San Antonio Creek, and the amount consumed used in supplying domestic water, and the balance was charged to the San Antonio Water Company at one hundred dollars per inch per annum: In the first place, how did you ascertain the amount of water of the Ontario Power Company in the Sadie tunnel?

A We deducted from the total amount flowing over the weir at the head of the 99-acre tract - -

Q Was there any written agreement governing that subject?

A There was no written agreement governing the division of the water, no.

Q Was there any resolution of the Board of Directors of either company governing the subject?

A I don't recollect of any.

Q All right; proceed then and state how it was done?

A I think I stated that this morning.

Q Well, if you did I fail to recall it. Well, state it again, because it has entirely faded out of my mind; it came up, but I do not recollect any such statement.

A From the entire amount of water flowing to Ontario from the Vadie tunnel that amount belonging to the San Antonio Water Company was first deducted, and the balance was charged by the Power Company, at the rate of one hundred dollars per inch to the San Antonio Water Company.

Q How much did you assume to be water belonging to the San Antonio Water Company?

A 130 inches.

Mr Haskell, Q You said this morning that you deducted the domestic water didn't you?

A Well, I stated that this morning; but I also stated this morning about the water taken from the San Antonio Canyon; that water goes into the computation, and then the domestic water used or vended is also deducted.

Mr Britt, Q Deducted from what? From the water to be charged to the San Antonio Water Company at the rate - -

A Of one hundred dollars per inch; that is correct.

Q How did you find out - How much did you ascertain that domestic water to be? Have you any record of it, showing the amount of domestic water which was deducted from the share of the Ontario Power Company?

The Court, Q I have understood all along heretofore that the Ontario Power Company was the supplier of domestic water:

Now I understand it ws not: which is correct?

A The Ontario Power Company; I did not intend to convey any other impression than that the Ontario Power Company vends domestic water.

Q Your answer rather suggested that to me; perhaps I misunderstood it.

Mr Britt, Q I understand from the statements of the witness that from the whole amount that went to Ontario they deducted the 130 inches; then from the remainder they next deducted the quantity which was supplied for domestic water, and then the balance was charged as he says to the San Antonio Water Company at the rate of one hundred dollars per inch.

A Adding to the balance the water belonging to the Ontario Power Company fromm San Antonio Creek .

The Court Q That first 130 inches that is supposed to be owned by the San Antonio Water Company is it not?

A Yes, sir.

Mr Britt, Q was that division made winter and summer, dry season and wet season?

A Theoretically; yes, sir, but simply theoretically, because that water rental extended through the entire year; but often in the winter we had a surplus of water after very heavy rains sometimes; and there were some winters when it absolutely and practically extended through the entire year; possibly we had a month or two when there would be a surplus of water in a dry year.

Q It appears here from evidence with which you are doubtless acquainted that since the bulkhead was put in, very

often there wasn't 130 inches taken out of the tunnel at all, by all the parties interested in it, the San Antonio Water Company, the Ontario Power Company and the Cucamonga Water Company, all three.

A Well, in that case, the water both of the Ontario Power Company and theSan Antonio Water Company is impoinded, and when it is discharged when thegate is lifted the same division occurs; it practically continuous, as I understand it, whether we use the water or whether we don't use it.

Q Where is that charge that is made to the San Antonio Water Company? Is it in the books of the Ontario Power Company?

A I am not very familiar with the method of book keeping; I presume it ought to be there.

The Court, Q You speak of the times when the water is impounded: Do you mean there are times when there be no water leave the tunnel at all?

A No, there has been no time when there was not some water seeping through and leaving the tunnel; but this chargeof one hundred dollars per inch practically runs the entire season.

The Court, Q Suppose there is less than 130 inches runs; Is that figured as the property of the San Antonio Water Company? Is there any charge made against the San Antonio Water Company under those Conditions?

A No, sir.

Q It is only when there is actually an excess of 130 inches running that the charge is made?

A The flow of water upon wich this charge is made occurs

during the irrigating seasons; that is we take the measurements at that time, and consider that if the San Antonio Water Company has the use of that water during the irrigating season it is practically a year's use.

Q Is there any system of book keeping, whereby either corporation is given credit for impounded water; that is water credit for water which may be taken out at some other time?

A No, I think not; that impounded water is supposed to be taken out during the irrigating season, and upon the flow during the irrigating season this whole financial matter is computed.

Mr Britt, Q Are the books here which contain the entries relative to that division of water, and to the charging up of the San Antonio Water Company, with water at the rate of one hundred dollars an inch?

A I would have to refer that to Mr Shepherd; I don't know what are contained in the books.

Q You don't know in what manner the books are kept?

A I am not very familiar with it.

Q On that subject?

A No.

Q Well, have you any knowledge of it at all; you say you are not very familiar with it; have you any knowledge of it at all?

A Well, it is a very superficial knowledge.

The Court: Mr McKinley, can't you tell us whether there are such books kept?

Mr McKinley: Yes, Mr McKinley informs me there are such

books, and we will put Mr Shepherd on later to explain that matter.

The Court, Q You spoke of the account between the two corporations for the use of the water as pertaining to the irrigation season: Do you mean that that is the particular season on which all of this division of water is based, and that other seasons you do not pay any particular regard to the division of water?

A Yes, that is true; it may be a long or a short season; it may extend the entire year or only six months.

Q Is there each year a determination by the respective parties as to what constitutes the irrigation season for that year? That is do you have some method of determining when that irrigation season begins or when it terminates?

A The parties have never taken up that matter; it has always been left to the manager.

Q That is yourself?

A Yes, sir.

Q You do instruct the zanjero when the irrigation season begins and when it closes for the purposes of this adjustment?

A Yes, sir.

Mr Britt, Q Now, in what manner did the San Antonio Water Company pay the OntarioPower Company for the water that was charged up at the rate of one hundred dollars per inch per annum?

A I presume in checks; that is a matter that I do not entirely recall; I know that checks have been passed; I presume it has been principally paid in checks.

Q And those checks are entered up in proper books of account are they, or do you know?

A There is no question but what they are.

Q Do you know where that account is kept showing these payments?

A I coulon't tell the exact books and so forth; I know the accounts are in our books.

Q How many domestic users were there, those people who were receiving this domestic water, not supplied in the Town of Upland, or by the Town of Ontario, in 1902?

A I don't know.

Q A few hundred or a few score, or a few dozen?

A I can't recollect.

Q How many were there in 1902, approximately, after the Ontario Power Company began to encourage as you say the use of domestic water through the San Antonio Water Company's pipes?

A My recollection is not sufficiently good to be able to fix the figure for 1902.

Q Do you know how many there are at the present time?

A There are something over 278 I tink.

Q How many were there in 1903, when this resolution was passed of July 15th?

A I am not sure whether I have any memorandum or not of that; I have no memorandum on that.

Q You say you haven't anything?

A No, sir; I haven't anything.

Q You don't know of anything?

A No.

Q You did give us the number in 1904 and for a few years afterwards?

A Yes, sir.

Q I understand you to say that you had these bills or some resolutions or entries made in the minutes concerning well number 3: let me see those bills now if you please.

A They are mingled here with a lot of other bills.

Q Can you segregate those bills to which you referred in the course of your direct examination?

A I think so.

Q If they are bould together I will not trouble you to -

A Yes, they are; you will find thecorners turned down there.

Q Will you refer me to thefirst bill which was paid for work there?

A Here is one of September 30, 1898, is the first in point of time.

Q This first bill is one of date September 30, 1898, and the San Antonio Water Company is charged in favor of Park G. Bradford to 9 days work, sinking the 10th street shaft. at $22.50; total $22.50: Now, you stated your recollection had been refreshed one way or another concerning that well: What were the means of refreshment? These bills and the entries contained in the minutes of the board?

A Yes, sir.

Q Are you able to say at the present time, at what time previous to September 30, 1898, Park Bradford did the work for which he rendered this bill? Was it shortly before? Say within that month of September?

A Well, I presume it was during that month.

Mr Bitt: I presume this is September 3d; it may be a "d" or a cipher after the "3". It was done about that time or shortly before? Is that your recollection?

A The shaft in the well was being sunk.

Q It says a shaft there?

A Yes, sir.

Q Was it being dug then as a shaft? It must have been if it wasn't being drilled as a well.

A The boring had been done sometime previously - some years previous to that time.

Q What sort of work was Bradford doing?

A Simply sinking the shaft down, following the bore of the well.

Q For what purpose?

A For the purpose of lowering the pump. When we were continuously pumping through the summer, there is sometimes danger of the water receding below the suction limit, and in that case, we continued the pumping, - that is, put some men in the bottom of theshaft, and sunk theshaft lower so that the pump might be lowered to meet the conditions in that respect; these bills have refreshed my memory somewhat on that line.

Q Might it not have been that Bradford was there sinking the shaft deeper than Stowell had sunk it originally?

A Well, that was the very dry year, and I know we got all the water we could out of that well, and they couldn't sink it without its being pumped, because the water would prevent them from doing so.

Q You didn't take any water away from there before you

had a pipe line, did you, to convey it?

A Before the pipe line was laid we had a V flume to there; that was put in in 1892 and in 1894; and that was replaced later with a steel pipe laid on the surface of the ground; and during the Summer of 1898 we put in under that resolution another steel pipe of larger capacity, because we expected to increase the running capacity of the well.

Q Do you know the pages of the book of minutes, to which you referred this morning?

A I think it was 128.

Q Now, on April 29, 1898, the resolution which you produced then, was as follows: "The committee on pipe lines and so forth recommended that a pipe line be at once laid to the 16th street well, and a pumping plant purchased to be used at said well". You didn't have any pumping plant there before did you?

A Frankish and Starm had a pumping plant there; they had it through several successive years.

Q It had burned down hadn't it?

A Well, the shed shack over it burned, I think in 1896, but it did not injure the pump very materially if I remember correctly; I think Frankish and Starm operated that well in 1897 through a steel pipe laid on the surface of the ground.

Q You know that Mr Frankish testified here that he didn't operate it in 1897, don't you?

A Well, I don't remember.

Q Do you remember anything about getting this pumping plant that was authorized here? "That a pumping plant

be purchased be purchased to be utilized at said well". - That was the resolution: Do you remember anything about getting that pumping plant?

A I recollect that a pumping plant was purchased and the well equipped as soon as practicable after the resolution was passed; we were very hot after the water that year; we wanted to get some water out as soon as possible.

Q Now, on December 19, theresolution was that the secretary be authorized to contract with C. C. Adams for sinking the 16th street shaft to water for two dollars per foot: Did the secretary make a contract with Adams?

A I don't remember.

Q Have you any bills for Adams for doing that work?

A I don't know that; I don't know.

Q From what source did you receive this collection of bills, some of which you referred to and part of which read in evidence a while ago?

A From Mr Shepherd.

Q Whether there are other bills relating to the same matteryou don't know?

A I don't know. We have a lot more earlier ones; we will bring those over; and later ones, too.

Mr Britt: I would like to see the bills of H.C. Adams.

Mr McKinley: All right.

Mr Britt, Q I understood you to say this morning, that the work on the shaft proceeded at the same time that you were pumping the well?

A Yes, sir.

Q Were you present there to see the process going on?

A I presume I did see it; I don't recollect at thistime.

Q Do you remember wo was sinking the shaft?

A I know that Tom Henry worked there to some extent.

Q I see one bill to which you referred here is dated June 13, 1898, San Antonio Water Company, from Rice & Anderson, Chino, to five days work, cleaning and cutting out 16th street well: Do you remember what was the nature of that work?

A No, I do not.

Q It seems to have been somewhat expensive; it is charged at $12 a day: You don't recollect the nature of that work at all?

A No sir; I do not.

Q Did you keep any record of any kind of the water received from the well at that time or that season?

.A I don't know.

Q Did you keep any record of any nature, of the water received from the well the next year, 1899?

A Our engineer kept a record.

Q What was his name?

A George Chaffey.

Q Where is he now?

A I think in Los Angeles.

Q Did he turn his record into the company?

A He made his report to the company in which he reported that 30 inches of water had been pumped from that well during that season.

Q Is the report now in the hands of the company?

A I think it is in the minute book; it is undoubtedly in

the minute book; yes.

Q This minute book that you produced here this morning?

A Well, in one of them; it is in one of them; we have three here.

Q Is this report of George Chaffey's one of the matters by which you have refreshed your recollection?

A Not in regard to the year 1898.

Q Well, that is what we are talking about here; there is anything in this report - I may have overlooked it - I scanned it with some care - about the quantity of water received from the 16th street well? Well, that was in November, 1899 wasn't it?

A Yes, sir; I didn't refer to that to refresh my memory; you simply asked me if there was any report on that well.

Q I was asking about the record of water in 1898; this is November, 1899, the 16th street well was pouring 20 inches of water.

A That is correct.

Q And that was the only 16th street well - what we call number 3, was the only one at that time which the company was operating? Wasn't that true?

A That is correct; yes, sir.

Q Is there any record of any nature concerning the water in 1898?

A There may be; I haven't seen any record of any water measurements on that well in 1898.

Q The question has been put several times before in the course of the trial and I will repeat it, if the company was not keeping any account of the water it was receiving at that

time from the various sources of supply: San Antonio Creek, San Antonio tunnel, Frankish and Steam tunnel and this 16th street well, and very soon after in the spring of 1899, they began to receive water from the Ladis tunnel, in virtue of this Stowell contract and Fruit Land Company contract: Were there no records kept at that time of the quantity of water received by the San Antonio Water Company?

A I think records were kept, but we had quite a lot of records of water measurements burned when our office burned three years ago; and ofcourse it has left a vacancy in our line of records.

Q These bills seem to have survived - the 1898 bills?

A The bills were in the vault; quite a number of our important papers were not in the vault at that time.

Q Looking over these bills casually, without running through all of them, I see there is one here entitled 16th street well and development, payment shown on ledger previous to drilling well; they begin in April, 1898, with an entry of $6.87, and they run to November, 1899: Have you examined this bill?

A No, I think not; at least I don't recall it.

Q It is simply headed sundry items, with dates not otherwise designated than by months: April, 1898; May, and so on: You know nothing about the items appearing there?

A No, sir.

Q Possibly if we can get the bills from Mr Shepherd which relate to the Adams contract, we will have something more definite; passing from that for the present, I desire to inquire of you further about this well number 14 or number

9; I understand you refreshed your recollection about that and that there was in October, 1903, a new siphon placed in that well?

A Yes, sir.

Q From what source have you refreshed your recollection?

A I have been looking over bills and accounts; I find a bill where the new siphon was purchased at that time or just previous to that time, in September sometime.

Q Had there been previous to that time any siphon in operation?

A Yes, sir.

Q On what well?

A On well number 14.

Q Do you know at what elevation as compared with the Eadie tunnel?

A Do you refer to placing the new siphon?

Q No, I am speaking of the old siphon which was in operation before the new one was purchased.

A The old siphon, at least a siphon, was put in operation shortly after we acquired the well in 1902; we acquired it early in May, 1902, and a siphon was placed in the well very shortly after - very soon after; in fact within a few weeks after the acquisition of the well by our company a siphon was in operation.

Q When you say "our company" which company do you mean?

A The Ontario Power Company.

Q From whom did it acquire the well?

A I would have to refer to the deeds for that; when I took charge of the company the company already owned the well.

Q I suppose when you speak of your taking charge of the company, you mean when you became the general manager in May, 1902?

A Yes, of the Ontario Power Company.

Q That was following upon the acquisition of its stock by the San Antonio Water Company?

A Yes.

Q What did you do toward enlarging the production of the well?

A I have alreadygiven that; I have already placed that in evidence.

Q Just state it again for the purposes of continuity here.

A The upper gallery or galley between the shaft,- about 80 feet to the west of well number 14 was connected at the tie or very shortly after the time that I became manager of the company.

Q Was that connected under your direction - that gallery?

A The gallery was very nearly completed when I took charge.

Q That was the uppermost gallery?

A That was the uppermost gallery.

Q At that time there had been no connection made between the well and the tunnel?

A Not as far as I know, until the completion of that gallery; it was completed very soon or at the time that I took charge of it; a siphon was placed in the gallery and the water was siphoned from well 14 into the shaft connecting with the tunnel about 80 feet to the west.

Q Do you know at what depth below the surface of the ground that gallery intersected well number 14?

A I can't give it definitely; I can only give my idea of it; as I recollect it, something like 60 or 65 feet below the surface; it may have been less or more; I can't tell.

Q And the siphon was placed in that gallery - that was the first siphon?

A The first tat I recollect; the first that I remember.

Q How did that gallery correspond with the elevation of water in the well, in the pipe?

A When the gallery was completed and the siphon placed there, the water was at or above the level of the gallery in the well.

Q If it was above, how much above?

A Oh, I don't know; sufficintly above so that there was a stream of water running through.

Q Running through into thegallery?

A I think so; that is my recollection.

Q Well, the pipe must have been cut at that time to have permitted the water to escape, or was the water coming up around th pipe so that it escaped through the gallery ?

A What pipe do you refer to?

Q I am speaking of the pipe of the well number 14 .

A The well had been pumped previous to this time, pumped quite severely, and the water lowered to the extent that a gallery could be connected with it; I don't know anything about the pipe down there; I don't think I ever saw the pipe on account of the water.

Q If pumped the water was turned out on the surface of the ground?

A Originally, yes, turned out on the surface, and run

down into a shaft down below, a short distance, a shaft that connected with the Eadie tunnel.

Q That is the tunnel was for the purpose of making this connection?

A Lowering the well, sir.

Q You put the siphon into that gallery and into the well and siphoned the water out of the well?

A That is right.

Q Do you know what time that siphon was placed in there, in 1902?

A It must have been in before June first, 1902.

Q Did you purchase thesiphon after you became the general manager?

A I do not remember about that; we placed some bills in here about which I testified a short time ago; if I had those bills I might be able to state more definitely.

Q Mr Shepherd testified about some bills; I don't believe you did also.

A I certainly did the last time I was on the stand.

Q Theother gallery was afterwards constructed?

A Yes, sir.

Q You don't rememberwhen?

A Why I think in thesame year; right in the same year; those bills from which I testified a few days ago would definitely place the date I think.

Q Do you know how much water ran out through that siphon into the Eadie tunnel?

A A very large amount; I couldn't give the exact amount; I know that it increased the flow at the mouth of the

Ladie tunnel very materially, so that we had difficulty in getting what water belonged to us through our pipe line to Ontario, besides delivering 60 inches to Cucamonga.

Q That water which came through the siphon came naturally I presume by atmospheric pressure - There was no pump?

A There was no pump there, no.,

Q Did the water decline any, the siphoned water?

A I presume there was some diminution of the water from the starting of the siphon from it to when we placed in theother one; possibly there was.

Q When did you place in theother one?

A Theother was placed early in the Fall of 1902 as I remember.

Q Through a lower gallery or the same?

A A lower gallery.

Q How much lower?

A Well, I don't know; I can't give the figures; I can't give thedistance because I don't remember.

Q We understand you placed three siphons for the purpose of connecting that well with the tunnel; you told us in October, 1903 you placed a new siphon.

A Well, I don't know that that makes three siphons.

Q You said about June first, 1902, there was the first one in the gallery?

A Yes, sir.

Q And you said in the Fall of 1902 you placed a other one: Now in the Fallof 1903 you tell us there was a new one placed.

A Well, I didn't say a new gallery as I recollect it; sim-

ply placed a new siphon in the same gallery, - a larger siphon and connected it with the pump.

Q Did that make three siphons or only two?

A It made two.

Q The first siphon continued to work for above a year after it was placed?

A The first year we may have placed in there a siphon of larger capacity; I am not sure about that; I don't recollect fully the size and character of the siphons, but I know they produced a large amount of water from the wall continuously.

Q You don't remember whether there were two siphons or three siphons?

A I know there were two galleries cut through there.

Q At what depth was the second gallery placed below the first? Give us an approximation; I really don't want to be tedious about it if I can help it, but it is a matter of some consequence to some of the questions connected with the case.

A It is difficult to state the depth if you have never measured it.

Q Were you there to see? Do you know within a number of feet?

A I suppose about 25 feet ; about 25 feet from the upper gallery to this second gallery.

Q Was it there that you placed the new siphon of October, 1903?

A It is my impression that it is; it certainly was not in the upper gallery.

Q Then you placed the new siphon in the new gallery

and that was made about October, 1903?

A Well, the new gallery was completed if I remember rightly in the Fall of 1902.

Q Well, you have refreshed your recollection and told us that in October 1903, you placed a new siphon in well 14?

A Well, we did that; that is true, a large one, 12 inch, and connected one end of it with the discharge pipe of a 10 inch pump, and pumped the water through that siphon while the lower gallery was being constructed.

Q Well, that lower gallery was the one which was finally cut through on a level with the tunnel?

A Yes, that is right.

Q To connect with the well?

A Yes.

Q Now, what I am getting at here is, or trying to get at, is whether or not there was any siphoning through that second gallery before October, 1903?

A Yes, sir; there certainly was siphoning through that second gallery, from sometime in the Fall of 1902.

Q Then you must have placed three siphons in connection there?

A Well, we ~~replacem~~ replaced the siphon in the second gallery by this larger siphon when we connected the pump.

Q Well, did you take the first siphon out of the first gallery and bring it down into the second?

A I am not sure whether we took that same siphon, or whether we put in a new one; I know in the second siphon we put in, we put in a gate to regulate the water; I remember that well.

Q Would the bills of your company show whether or not you had three siphons for that well?

A I presume so.

Mr Britt: Mr Shepherd, will you look for that before the next session of Court, and see what you can find in that regard?

Q Now, in the Fall of 1908 you began pumping in order to help out the siphon?

A Yes, sir.

Q You pumped out of that large well?

A Yes, sir.

Q Well number 14?

A That is correct.

Q And discharged the water where?

A Discharged into the Nadie tunnel.

Q Where did it go to out of the Nadie tunnel?

A It went down to the mouth of the Nadie tunnel, and through the pipes to Ontario.

Q Did you take all that great volume of water to Ontario at that season of the year: Didn't you turn it out into the wash?

A No, sir. No,,sir; I am quite confident we did not do that; I never heard of that before.

Q What were you doing with that large volume of water, when you didn't use the water when it was of much smaller quantity?

A I think if you refer to the rainfall that year, you will find that we did not get very much rain until quite late in the season.

Q Well, that was the Fall of 1903?

A Yes, sir.

Q You think you finally got your lowest gallery through to a connection with the well in February, 1904?

A Yes, sir; I think about the middle of February.

Q Did you pump all that time?

A I think we did; the pumping during that time was not simply the connecting of the tunnel with the gallery; that was completed very soon after beginning the pumping; but the conditions were such in the tunnel that it became necessary to pipe the tunnel, make a permanent job of it, so that it would be secure and safe in after years; and that accounted to some extent for the continuation of the pumping.

Q And you pumped that well in a drastic manner, so as to get the water out of the ground around it, so as to facilitate the driving of the tunnel or extension of the tunnel, so as to get the water out of the ground at tunnel level?

A That was one of the purposes of pumping it.

Q About how much water did you pump out of the ground by that process?

A The increase as I recollect it - my memory is quite definite on that point - I think was about 50 inches.

Q Increase above the natural flow?

A Yes, sir; above the natural flow through the siphon.

Q After you made the connection on the ground floor, so to speak, on the level of the tunnel, did you observe what quantity of water the well discharged, as compared with what you had been pumping?

A My recollection is about 50 inches less.

Q Do you know what the two quantities were?

A No, I don't remember that. I think you have evidence in indicating what the measurements were at that time.

Q If you have we would like to see it; it would be an interesting matter, naturally.

A I think one of your witnesses, Mr Marsh, made measurements about that time; I think that is in the record here.

Q Let us have that record, and the record about the three siphons, the bills, and I believe that is all we want the books of the company showing the entries as to.

Mr Haskell, Q You say there was a division of water made between the San Antonio Water Company, and the Ontario Power Company: Who made that division?

A What time do you refer to?

Q In 1902 when it first began to be made?

A The division was based upon the measurements of our engineers at that time.

Q Who made the computation?

A The computations at tat time were in charge of Mr Shepherd; I presume he or his assistants made them in the office.

Q You were an officer of the San Antonio Water Company at that time were you not?

A Yes, sir.

Q And of the Ontario Power Company?

A Yes, sir.

Q Didn't you have a hand in making that division, and making the computation on the reports of the engineer?

A I didn't make the computations.

Q You had something to do with the approving of it?

A I presume that I approved the division.

Q Where are the measurements of the engineer - the reports of the engineer?

A I don't know.

Q Are they in the possession of either the Ontario Power Company or the San Antonio Water Company?

A I am inclined to think those reports were burned with other reports.

Q Do you know as a matter of fact whether they were or not?

A No, I don't know whether those special records were burned or not; I take it for granted they were because we have been unable to find them

Q Didn't the San Antonio Water Company, immediately after its purchase of water, and conduct of water from the Radio tunnel erect an automatic self-registering weir for measuring water, at or near the mouth of the Radio tunnel?

A A self-registering weir was placed there, I think at quite a recent date - Do you refer to 1902?

Q Yes, we will say 1902; I referred to the original purchase in 1899 or 1900?

A A self-registering weir was placed at the mouth of the Radio tunnel, at quite a later date, shortly after we made a new box for measuring at the mouth of the Radio tunnel.

Q Was that in 1902?

A I think not; I can't give you the date at this time.

Q Do you know whetherit was before or after?

A After 1902?

Q Yes?

A After.

Q How long after?

A I think one or two years; I am not sure aboutthat; our books would give that I think.

Q What was done with the sheets taken from the automatic weir?

A I think they were filed in our office.

Q Have you possession of those now?

A We have possession of a roll of them; I don't know how far back they extent.

Q Have you possession of the first sheets that were ever taken from that weir?

A I don't know.

Q Will you bring those sheets for our examination?

A Yes, sir.

Q And all that you have?

A Yes, sir.

Q They were sheets kept by your engineers or under the direction of your engineers?

A Yes.

Q Andfrom which he made his computations as to the amount of water flowing from the Eadie tunnel?

A I can't say as to that; I don't know what computations he made on the sheets; I don't know that he has made any; those sheets, what we have, are a matter of record; I think his computations were made from his regular measurements, so far as I know.

Q Now, you as an officer of the Ontario Power Company, and as an officerof the San Antonio Water Company had full

charge of the distribution of those waters didn't you, and everything that was done in regard to the distributing of these waters, was done under your direction, wasn't that true?

A Yes, sir; that is right.

Q The engineers, zanjeros, and other officers took your orders in that respect, did they not?

A Yes, sir; that is right.

Q And the quantity of water in this division was usually, if not entirely, determined by you, was it not, ultimately?

A Determined by the engineer's measurements and computations.

Q Was that engineer acting for both the San Antonio Water Company and the Ontario Power Company?

A He was employed by the San Antonio Water Company; I would have to refer to the records to ascertain to what extent---

Q He was acting under your direction was he not?

A Yes, sir; certainly.

Q And regardless of who paid him who was he acting for?

A He was acting for the San Antonio Water Company.

Q Was he not acting at all for the Ontario Power Company?

Mr McKinley: We will stipulate either way counsel wants us so.

A I am not positive whether he was paid at all by the Ontario Power Company or not; I will have to look into that matter.

-o-

Here the Court takes a recess until Monday, March 29, 1909, at 10:30 o'clock a.m.

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J. W. McKinley

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

| | |
|---|---|
| Cucamonga Vineyard Co. et al<br>Plaintiff<br>vs.<br>San Antonio Water Co et al<br>Defendant | Mar 29, 1909<br>Vol. 40 |

Index.



I. BENJAMIN, Official Reporter

Monday, March 29, 1909; Fortieth Day.

- -

Mr McKinley: I want to call the attention of the Court, and Mr Haskell, particularly, to the fact that one of his clients has been dead for some time, - Geore G. Rundell.

Mr Haskell: I had not been informed of it.

Mr McKinley: I happened to notice that the administratrix of his estate was proceeding to sell certain lands in San Bernardino, which I presume were these lands. The administratrix is Hannah C. Rundell.

Mr Haskell: I will look the matter up and attend to it.

-C-

W. T. LEEKE.

W. T. Leeke, recalled for further cross examination, testified as follows:

Cross Examination

Mr Haskell, Q Have you brought into court this morning the weir measurements to which reference was made in the cross examinatin last Friday?

A I have these weir sheets,- the automatic register sheets.

Q Are those all the weir measurements that you have, or sheets from the weirs?

A All that I was able to find.

Q Have you made a thorough search of the records of the office of the San Antonio Water Company, and of the Ontario Power Company for such sheets?

A I made a careful search.

Q Do you remember now how far back these go?

A I do not; I have not looked into them.

Q Is there an automatic weir there now?

A The weir is there now.

Q Has it been kept in operation during the year 1908?

A Yes, sir; I think continuously; there might have been sometimes the clock may have stopped a few minutes, or longer, but my impression is it ran continuously.

Q Now, was it the duty of the man in charge to turn these sheets over to your office or tothe office of the SanAntonio Water Company?

A Yes.

Q And it has been his duty, in likemanner, to do that, ever since the weirwas first established?

A I think so.

Q Have you also such weir measurements on the 16th street wells?

A Not in the office, as far as I know.

Q Have such measurements been kept?

A Not in the past year; I don't recollect exactly the dates when we stopped placing sheets on the 16th street wells.

Mr Maskell: I would like to suspend this cross examination forthe present time, for the purpose of examining these weir measurements, and possibly not require the witness at all;it will depend on what years these cover, and it will take some time to go through these with the witness at the present time; if the court will permit us to examine these weir measurements during the noon hour I would liketo do so.

The Court:, Is that agreeable to the other side?

Mr McKinley: Yes. I have no objection.

Mr Britt, Q Mr Shepherd produced here a number of vouchers for moneys paid to McConnell. mostly in 1903 and the early part of 1904, for the laying of pipe line, the excavation of shaft, and extending tunnel, and stated as I remember that he did not personally have strictly accurate information, as to the particular work that was being done but he thought Mr Locke did have: Do you remember those operations?

Mr McKinley: I examined him on direct on that subject.

Mr Britt: If the matter has been covered I don't want to go over it again.

Mr McKinley; I don't know whether it has been sufficiently covered for your purposes.

Mr Britt, Q Was that work done by McConnell in 1903 and 1904, in extending the tunnel to the connection with the well number 14, a part of thework which is mentioned and provided for in the contract of the Ontario Power Company with McConnell madein April, 1902?

A The contractor found the work so difficult, that that contract was laid aside, the provisions of it laid aside, in May 1902, early in May, and the work progressed either under verbal or memorandum contracts through 1902, until the final work was complete.

Q Where are those memoranda of the contract? Do they remain in the possession of either company?

A I have not been ableto find them; they were not in regular form, and I have not been able to find them; I doubt very much if they are in existence; my impression is that they were burned during the fire; I have tried to look up

as far as possible, all the data pertaining to those years, for my information.

Q By whose authority, or rather by whom, if you know, was that contract of April 2 1902, with McConnell, abrogated by you and McConnell?

A By mutual consent of McConnell and myself.

Q Were you acting for the San Antonio Water Company or for the Ontario Power Company?

A Actinf for the Ontario Power Company.

Q Without authority from the San Antonio Water Company?

A As far as I remember; except this authority: that - - I don't think I had any direct authority from the San Antonio Water Company.

Q And yet you were aware, were you not, that the San Antonio Water Company had assumed the burden of that contract, had assumed that contract with McConnell?

A No, the San Antonio Water Company had not assumed it at all.

Q It had not?

A No; as far as I know, the Ontario Power Company took care of its owncontracts.

Q In the contract between the San Antonio Water Company and the Ontario Power Company of May 8, 1902, appears this clause: "It is hereby further stipulated and agreed between the parties hereto, that party of the first part - San Antonio Water Company - at the time of the assignment to it of said stock of said Ontario Power Company, will assume a certain contract heretofore made or entered into withone McConnell, for running a tunnel on the said land

so to be held by the said Ontario Power Company and mentioned under schedule subdivision third, paragraph two hereof" -

Wasn't that the tunnel provided for in the contract between the Ontario Power Company and McConnell of April, 1902?

A I think so.

Mr Britt: That is all forthe present.

Mr McKinley, Q With reference to that contract referred to in that agreement, was that contract ever carried out?

A No.

-o-

S. C. SHEPHERD.

S. C. Shepherd, recalled for further cross examina-. tion, testified as follows:.

Cross Examination

Mr Britt, Q Are you accustomed to measuring water?

A No, I am not.

Q Did you ever make any measurement of water?

A No.

Q Were you at any time present when the well number 3 of the San Antonio Water Company north of 16th street, theone at present called number 3, was being pumped in the year 1898?

A Why, yes, I am pretty sure that I was there at that time.

Q At what time?

A Why, I tink itwould be in September and October.

Q Who was with you?

A I think it is very likely there was.

Q I say, do you remember wo was with you?

A No, I do not.

Q Whatwere you there for?

A Well, as secretary of the company I very often went around with the different men, with the president of the company and often by myself, to these different wells, just to see what was going on.

Q What was the occasion of your being there at thattime? Remember I am speaking of 1898.

A Well, I can't remember of any particular date that I was there, only I do know that in a general way, that I am nearly always present at those wells, at some time during the time they were being pumped.

Q Well, you have no recollection of making any particular observation in that year of the flow of water from that well, have you?

A No, I do not.

Q Have you any recollection of any particular occasion when you were there, the circumstances of it, in that year?

A No, I haven't any record to show any particular time when I was there.

Q No, I wasn't asking you about record; I asked you about recollection.

A No, I can't remember any particular date.

Q You gave some testimony about theuse of the water obtained by the San Antonio Water Company for irrigation within the several thousand acres at and about Ontario, and at and about Upland, and among other things you said there was some irrigation there of grapes: Do you recall the

circumstance?

A Well, I remember that there were some grapes grown in Ontario in the early days.

Q Are there any grown there now?

A I think there are; very few.

Q Any vineyards at Ontario?

A I think I only know ofone; that is about ten acres.

Q Whose is that?

A I can't remeberthename; it is somewherenearthe Southern Pacific Railroadon th east side. of the Colony.

Q North or south of the Southern Pacific?

A North of the Southern Pacific.

Q In the City limits of Ontario or outside?

A I think it is within thecity limits.

Q You don't remeber the name of the owner?

A No, I do not.

Q How old is the vineyard?

A It is quite an old vineyard; I think itmust be 15 or 20 years old.

Q Hasit been irrigated?

A It has been irrigated, yes.

Q With water furnished by the San Antonio Water Company?

A Yes, sir.

Q Do you know of any other?

A That is about the only one that I have any personal knowledge of; there may be some other place there that I don't know of.

Q At an earlier period of your examination you stated that the quantity of water distributed by the Ontario Power

Company for domestic consumption was entered up in a ledger kept with the consumers, and you were requested to produce that account: Have you it with you at the present time?

A No, I have not; the consumers' ledger of the early dates, of the Ontario Power Company, was burned in the fire of the office of the San Antonio Water Company ; I think it was in 1905.

Q Do you remember the date of thatfire? It has been frequently referred to here?

A I think it was either in November or December, 1905; that seemed to be the only book that had been left out of the vault.

Q At page 1947 of the reporter's transcript, your testimony was this, you being under cross examination:.

"Q What sort of records are those water deliveries entered in?

"A The water that would be sold by the Ontario Power Company would be charged up to the consumers in a ledger".

"Q And that ledger is at the office of the two companies is it?"

"A Yes, sir"

And then a request that it be produced: Have you looked for it since that time; that was March 4th; Have you looked for it since that date?

A I have looked forit; I could produce the consumers' ledger since thefire; since 1905; I haven't got those here; they are very voluminous and I can bring them down if necessary.

Q Well, is there a summary? I don't want to bring bulky books here if you can avoid it.

A It would be hard to have a summary of those kind of accounts; there is over 1200 accounts in those consumers ledgers, and it would be very difficult to make a summary of them; if you want to examine the books the only way to do is to bring them down.

Q I am speaking only of the Ontario Power Company consumption.

A Well, that is right; that is what I am speaking of.

Q Well, we were informed here that those were only outside ranchers or consumers, outside of the City of Ontario, and the City of Upland or the Town of Upland- people supplied with water by the Ontario Power Company; Mr Leake stated here the other day that it we between two and three hundred in number.

A The consumers' ledger of the Ontario Power Company contains not only the accounts of the water that is sold to those consumers, but all of the accounts of the electric lighting business; and they are all in the same ledger; and taking the two together there are some 1200 or 1400 accounts and the two different accounts, the lighting accounts and the water accounts are in the same ledgers and mixed up; that is, there may be a consumer of electric light and a consumer of water, and they are both in the same book - charged up in the same account.

Q Is there no record showing the quantity of water which is thus distributed? not electricity, but the quantity of water which was thus distributed by the Ontario

Power Company, and to whom, aside from those individual accounts kept with the individual consumers?

A No, that is the only -

Q Hasn't it any general water account, the Ontario Power Company, has it no general water account, showing the amount that it delivered to the various people?

A No, I think not.

Mr McKinley: I think theaccount between the San Antonio Water Company and the Ontario Power Company would show that amount probably; those books are here.

Mr Britt: That might show the amount that was charged between the companies, but not show the amount which the Ontario Power Company was actually distributing.

A I think that the bills paid to the Power Company by the San Antonio Water Company, might show some of those lump items in lump sum.

Q It is not so much lump sums as lump amounts of water that we are interested in. Now, there was an agreement between those two companies for theuse of the pipe lines of the San Antonio Water Company by the Ontario Power Company, and there seemed to be some uncertainty as to whether it was in writing, as a formal contract, or as a resolution, or rested more more of mouth: have you given that subject any attention? There was a request to produce it if it was in writing.

A I think I brought that contract down here and gave it to the attorneys.

Mr Britt: Can you give us any information about that?

Mr Joliffe: I have a lot of papers that were brought in

by Mr Shepherd, but I didn't think that was among them.

Mr Britt: Will you make an examination of your papers and see if you have that?

Mr McKinley: We will certainly.

Q You were also requested to produce vouchers showing expenditures for deepening the 16th street well number 3, which you thought was done some time in 1899: Were those the vouchers which Mr Leeke produced here the other day or some of them, or do you know?

A Mr Leeke may have had some of those vouchers here, and I have some here this morning.

Q Will you allow us to see those that you have at the present time?

A Here is a particular account you asked for, C. M. Adams- that account is here.

Q This account to which you last referred bears date January 20, 1899, and appears to evidence a charge against the San Antonio Water Company by M. C. Adams, for sinking 16th street well to water level, 70 2/3 feet, at $2.00 amounting to $141.32: Have you any personal recollection about this account or the payment made to Adams?

A Nothing any further than that I remember of Adams doing the work - and paying the bill; I remember Mr Adams personally.

Q Do you know whether or not this account was paid at or about the time it bears date?

A It was paid at that time.

Q January 20, 1899?

A Yes, that would be practically the date of it; it might

have been two or three days before that, or two or three days afterwards, but it was paid that month.

Q And do you remember at what time the work was done ? Was it shortly before that date, January 20, 1899?

A I think the contract was made with him in November or December.

Q There was a written contract with Adams?

A No, I think not; It was only a verbal contract; I was unable to find any written contract, and I know as a rule those contracts were simply verbal.

Q Are you able to describe the work which Adams did, for which he was paid $141.32?

A No, I don't know that I can give any description of it, any further than that he was sinking that shaft.

Q 70 2/3 feet. You place in my hands also an account dated August 2, 1899 of Henry L. Blakeslee, with the San Antonio Water Company, including numerous items, amounting to $201.19, and it appears to be apportioned to various water developments; it will not be necessary to read them all but I find of that amount, $201.19, there appears to be charged to the Haskell-Keller development, $11.75, and to the 16th street well $25.55: was that work done at this well number 3, at or about that time, or materials furnished for that well or do you know anything about it?

A I don't remember anything about it, except what I would know from the account itself.

Q We would like to examine these accounts which are pretty numerous, just now placed in my hands; and it will take up the time of the Court unduly to examine them at

this time, and we ask that the examination of the witness upon them be deferred until we have an opportunity to examine them.

Did you observe the sinking of the shaft by Adams while the work was in progress?

A I did not make any personal examination; it is quite probable that I was there at different times while he was doing the work.

Q Do you remember being there at all, when the actual work of sinking was going on, and anything that you observed at that time?

A No, I can't recall any particular date.

Q Now, Mr Shepherd, I will return to some matters concerning which your information is probably more definite than it is about these outside running of drafts and sinking of wells: I would like you to produce if you please the minutes of the board of directors of the Ontario Power Company, at pages 114 and following: is this volume some of the like literature to which Judge Gregg referred that you hold a fondness for?

A Yes, sir.

Q All right: At page 114 do you find a record of proceedings taken for the change of the place of business of the Ontario Power Company from Los Angeles to Ontario?

A Yes, sir.

Q That has probably already sufficiently appeared in the evidence: I don't care to encumber the record with all of the proceedings; just state what appears at that page of the record: If counsel on the other side desire it all in

we have no obection.

A On page 114 it shows the affidavit of publication signed by William W. Roe.

A A newspaper man of Los Angeles?

A Yes, sir.

Q Of the notice of the change of place of, of the principal place of business from Los Angeles to Ontario?

A Yes, sir.

Q And the action of the directors already appeared; then at page 115 , read the resolution there appearing concerning some transactions between the Ontario Power Company, and the San Antonio Water Company?

A This is a record of the minutes of the Ontario Power Company, dated Ontario, California, October 15, 1902; a meeting of the Board of directors of the Ontario Power Company was held on the date above written, at 8 o'clock a.m. at which all the directors were present. The minutes of the meeting held June 7th were read and approved. The following resolution was adopted by unanimous vote: Resolved that this corporation pay to the San Antonio Water Company, the sum of ten thousand dollars, the same being a partial reimbursement to said San Antonio Water Company for moneys heretofore expended by it in the construction, protection and maintenance of its pipes and water system, in consideration of conveyance to this company by said San Antonio Water Company of all the surplus capacity remaining in the pipes and conduits of the water system of said San Antonio Water Company, over and above the capacity required by said company forthe conveyance of water now owned or controlled

by it, or which may hereafter be owned or controlled by it, and which it may desire to conduct through said pipes and conduits. Resolved that the president and secretary of this corporation be and they are hereby authorized on behalf of this corporation to execute a lease from the San Antonio Water Company, a corporation to the Ontario Power Company, a corporation, dated the first day of June, 1902, the said lease being in the following words and figures:

This indenture of lease made this first day of June, 1902, by and between the San Antonio Water Company, a corporation, lessor, and the Ontario Power Company, a corporation, lessee, witnesseth: That the said lessor for the consideration hereinafter specifically referred to as moving from the said lessee to the said lessor, does hereby lease, demise and let unto the said lessee, for the term of ten years from the date hereof, all the surplus capacity remaining in the pipes and conduits of the water system of the said lessor, over and above the capacity required by said lessor for the conveyance of water now owned or controlled by said lessor, or which may hereafter be owned or controlled by it, and which it may desire to conduct through said pipes and conduits; it being expressly understood that nothing in this lease contained shall be held to restrict the amount of water which said lessor shall be entitled to carrynthrough its said pipes and conduits, but merely to cover all surplus capacity in said pipes and conduits, if any remains after said lessor shall have used said pipes and conduits for the conveyance of the water now owned and controlled by it, or which may hereafter be owned and controlled

by it as hereinbefore set forth. The rental paid by the said lessee for this lease is the sum of ten thousand dollars this day in hand paid by said lessee to said lessor, the receipt whereof is hereby acknowledged, which said sum is a partial reimbursement to the said lessor for moneys heretofore expended by it in the construction and maintenance of its pipes and water system. The said lessee promises and agrees at the end of said term of ten years aforesaid to quietly and peaceably surrender said leased capacity in said pipes and conduits to said lessor; and said lessor further covenants and agrees to pay a sharesf the expense necessary to the maintenance of said pipes and conduits proportionate to the value that said leased capacity in said pipes and conduits bears to the entire capacity of said pipes and conduits. And said less further covenants and agrees to pay a like proportionate share of all the taxes that may be levied upon said pipes and conduits, during said term.

In witness whereof the said lessor and the said lessee have respectively caused these presents to be executed by theirnofficers first thereunto duly authorized, and have respectively hereunto set their corporate seals the day and year first above written.

San Antonio Water Company by (blank) President (blank)Secretar
~~Xxx~~ Ontario Power Company by (blank) President.

(blank) Secretary.

Q. Was that instrument which was authorized by that resolution actually signed up in accordance with the resolution, by the officers of the two companies, respectively?

A. Yes, sir; I believe i was; that is my recollection.

Q. Is that the contract which you mentioned this morning

as having been placed in the hands of counsel for the defendants here?

A Yes, sir.

Q You participated in the adoption of that resolution did you?

A Yes, sir.

Q Was there any estimate made at that time of the surplus capacity of the pipe lines of the San Antonio Water Company which was the subject of that lease or contract?

A I think not.

Q Has there ever been since?

A Not to my knowledge.

Q Was that sum of ten thousand dollars which is there mentioned as having been then in hand paid, at that time received by the San Antonio Water Company?

A I don't remember; I couldn't tell without looking the books.

Q Well, you were the secretary and book keeper of the San Antonio Water Company at that time?

A Yes, sir.

Q And it is specified there in that paper as being the entire rental for that period of ten years, all then paid immediately.

A That is what it specifies.

Q You don't remember whether it actually was paid?

A No, I do not.

Q There is another provision in the instrument authorized by the terms of that resolution, for a payment by the Ontario Power Company of a part of the taxes, proportionate to the

quantity of leased interest in the pipe lines, created by the terms of that paper: Was there ever any ascertainment by the two companies of the amount of taxes which the Ontario Power Company should pay in pursuance of that provision?

A I think not; for the reason that the pipe system of the San Antonio Water Company as a pipe system alone is not assessed, and no taxes paid on the pipe system.

Q How is it assessed?

A The value of the pipe system is included in the value of the lands - that is the lands are taxed at a rate that covers the pipe system.

Q Well, did the Ontario Power Company ever pay any part of those taxes?

A I don't think it ever paid any part of the - -

Q Taxes on the land itself?

A I don't think it overpaid any taxes on the land, because the land belongs to a good many private individuals; the land does not belong to the San Antonio Water Company.

Q Do you mean to say for instance that that pipe line which reaches from the mouth of the Nadie tunnel, I think of a diameter of 30 inches, and the other pipe line 22 inches in diameter, lies on the lands of several hundred private individuals?

A No, not that individual pipe; that is on the land of the Ontario Power Company; that is, a portion leading from the east side of the Colony of Ontario to the Nadie tunnel; after that pipe leaves the - -

Q Isn't it from the mouth of the Nadie tunnel to the east side of the Ontario Colony?

A Yes, sir; put it that way. Then, as I understand, further west, the pipe system is all on the lands of private individuals.

Q Well, at any rate there never has been any payment of taxes made by the Ontario Power Company under the provision of the contract which we have just now read in this resolution, providing for an apportionment of the taxes?

A Not to my knowledge.

Q I wish you would look at the resolution on or about December 10, 1903, contained in the minutes of the Ontario Power Company, approving a long list of bills of one kind and another: You find the list?

A I find the list.

Q At what pages?

A Pages 130 and 131.

Q And the date is December 10, 1903?

A Yes.

Q And theminute is signed by B. C. Shepherd, secretary?

A Yes, sir.

Q The approval of those bills was a part of the action then taken by the board of directors was it?

A Yes, sir.

Q Now, do you find any subsequent list of bills, of expenses, or list of bills, for work carried on by the Ontario Power Company, subsequent to this? I am not asking you about previous?

A No, I don't find anything subsequent to that; I am quite sure there is none.

Q Why was it that the board of directors from and after

that time did not approve, or apparently have anything to do with the payment of bills for expenses of the Ontario Power Company, or any work carried on by the company? Do you know anything about that?

A The board of directors of the Ontario Power Company did not have a meeting every month, for the purpose of passing on bills; the bills were approved by the manager of the company, and also by some other committee, and - -

Q Were they not approved by the Board of directors of the San Antonio Water Company?

Mr McKinley: I think the witness should be allowed to finish his answer; he had not yet completed it yet.

Mr Britt: I thought he had completed it; he stopped, and I thought he had finished.

Mr McKinley: The last word he said was "and" and I thought he had something more to say.

Mr Britt ; Certainly; I want the witness to finish the answer if he has done so.

A I think the bills will show that they were approved by the manager of the company.

Q Who was that? Mr Leeke?

A Mr. M. T. Leeke. Some bills I also think were gone over by a committee that was appointed by the board of directors of the San Antonio Water Company.

Q Who were the members of that committee?

A I would not be able to say without examining the vouchers themselves.

Q And were those bills submitted to the board of directors of the San Antonio Water Company? You know that in their

minutes that every month or such a matter there is a long list of bills approved at sessions of its board.

A My recollection of that matter is that these bills were approved by Mr Locke, and also by this committee, and a simple statement was made to the board of directors that a bunch of bills has been approved by such manager and committee, and the board of directors without examining the bills authorized them to be paid.

Q That is, the board of directors of the San Antonio Water Company?

A Yes, sir.

Q Turn to page 132 if you please of the minutesof the Ontario Power Company: Do you find a resolution there providing for the borrowing of certainx funds by the Ontario Power Company, the debt to be guaranteed by the San Antonio Water Company?

A Yes, sir.

Q Well, I think it gives the form of a promissory note to be executed.

A It does.

Q That is probably unnecessary to be inserted in the record here; it is somewhat lengthy; if you will just state the substance of the resolution there and what it purported authorized to be done, without reading the whole of it, it will be sufficient for our purposes. The other side can have it all if they so desire.

A It was resolvedthat the Ontario Power Company will borrow of Mrs. Marcella A. Inglis, $4000, and will execute its promissory note therefor, in thefollowing words and

figures: Then follows the form of the note; and at the end it states that the president and secretary are authorized and directed to execute the said note with the name and seal of this corporation; and it also states that in accordance with a resolution of the board of directors of the San Antonio Water Company the above note was guaranteed by the San Antonio Water Company, by endorsement in the following words: For value received the San Antonio Water Company, a corporation, do hereby waive presentation of the within note to maker, demand for payment, protest and notice of non-payment, and do guarantee payment of the same.

Q. That note was executed, was it, and the money obtained from Mrs. Inglis, in accordance with the resolution?

A. It was.

Q. Do you know for what purpose?

A. No, I do not.

Q. What was the object in having the San Antonio Water Company guarantee the note? Could not the money be obtained without that guaranty?

A. I think not; not from this party at that time

-o-

Here the Court takes a recess until two o'clock p.m.

-o-

Afternoon Session 2 p.m.

Cross-Examination of B. C. Shepherd, resumed.

Mr Britt, Q Touching the resolution of the board of directors of the Ontario Power Company, which was read in evidence this morning for the leasing of surplus pipe space, or pipe capacity from the San Antonio Water Company, I will exhibit to you now a paper entitled, Lease, San Antonio Water Company to Ontario Power Company, which is now handed me by the attorneys for the defendants, and inquire if that was the paper which was executed in accordance with that resolution; I do not wish to put this in evidence unless some question is raised about it; I merely want to show the mode of the execution.

A Yes, sir; that is the contract or the lease.

Q And this paper purports to be signed San Antonio Water Company by T. T. Leake, president and B. C. Shepherd, secretary; Ontario Power Company, by L. C. Dyer, president, and B. C. Shepherd, secretary?

A Yes, sir.

Q And their respective corporate seals impressed?

A Yes, sir.

Q Now, Mr Shepherd, I will call your attention next to certain minutes of the San Antonio Water Company: First, produce if you please, the minutes of December 31, 1903, I think it is on page 149; I am not ableto say what volume; Find the resolution if you please about the contract to be made by the Ontario Power Company with McConnell, - Do you observe it?

A Yes, sir.

Q What is the date of this resolution?

A December 31, 1903.

Q That is found in what volume?

A The minutes of the board of directors of the San Antonio water Company at page 149 . A special meeting of the board of directors of the San Antonio Water Company was held on December 31, 1903, at nine o'clock a.m. at the office of the company; there were present Messrs Locke, Linley, Hawkinson and Graves; absent, A.B. Harwood. The board by unanimous consent recommended that the Ontario Power Company should enter into a contract with Mr McConnell for certain work on the Cucamonga tunnel and shaft and piping of said tunnel, amounting to the sum of $965. They were also recommended to arrange for the measurement of water at the mouth of Cucamonga Tunnel, if thought advisable after consulting the Company's attorney.

Q Now, the Cucamonga tunnel there mentioned is the same thing as the Padie tunnel?

A Yes, sir.

Q Sometimes called the Stovell tunnel?

A Yes, sir.

Q Did the Ontario Power Company enter into such a contract with McConnell?

A I don't know.

Q Did you ever inspect or examine that work on the Cucamonga tunnel, which is thesubject of this resolution? Wasn't that the part of th work of connecting up the tunnel with the number 14 well?

A I think not.

Q What was it?

A Well, all that I would know would be from reading this resolution; from this I would infer there were certain shafts to be sunk there, and that the tunnel was piped with cement pipe; I know that the tunnel was laid with cement pipe, and it is my recollection that it was necessary to sink some shafts in order to get this large pipe down.

Q Was that done by McConnell?

A I believe it was; I think Mr McConnell's bills would probably show.

Q And that work was done by the Ontario Power Company in accordance with this resolution?

A I think so.

Q There is no such resolution in the minutes of the Ontario Power Company is there?

A I think not; the Ontario Power Company did not hold very many meetings of its directors.

Q January 19, 1904; turn to the resolution of that date if you please, the minutes of the San Antonio Water Company.

A Yes, sir.

Q You find there something relative to the sale of a cottage, near the Cucamonga Red Hill?

A It states on the minutes here dated January 19, 1904, minutes of the board of directors of the San Antonio Water Company, that the Ontario Power Company were recommended by the board to sell a cottage near the Cucamonga Red Hills for the sum of $175.

Q Do you know where that cottage was situated?

A I did know where it was.

Q Where?

A On the lands of the Ontario Power Company, near the Cucamonga Red Hills.

Q Did the Ontario Power Company sell the cottage accordingly?

A I think it was sold to somebody, but my recollection was- it was not sold at that time; it may have been; it may have been sold later; I think that it was sold later.

Q Is there anything on that subject in the minutes of the Ontario Power Company?

A I think not; those matters were left to Mr Leeke as the manager of the Ontario Power Company.

Q To carry out the directions of the directors of the San Antonio Water Company?

A I guess that is what we did, as a rule - as he thought best.

Q In 1904, do you find a resolution of the board of directors of the San Antonio Water Company, touching the renting of some water to the Pacific Light and Power Company?

A I do not find a resolution here; I think the board just simply recommended, without a formal resolution, that the Ontario Power Company rent to the Pacific Light and Power Company for the ensuing year, beginning May first, five or six inches of water, continuous flow, at the rate of $150 per inch per annum.

Q You say it is not in the form of a resolution: that is all that appears there,- that the board recommended?

A Yes, sir; that the board recommended; those recommendations were often made without any resolution whatever,

simply an instruction to the manager, as to what was best to do.

Q Well, a resolution is simply a determination or action of the body, whether it is introduced by "Resolved:" or not is it not?

Mr Mc Kinley: We will stipulate to that.

Q Where was that five or six inches of water obtained from?

A Well, that would be pretty hard to say; because the Ontario Power Company owned a lot of surplus water in San Antonio Canyon, besides the water that it owned at the Eadie tunnel, and that was a part of the water of the Ontario Power Company; it might come from either place.

Q Did the Pacific Light and Power Company get the water?

A I think they did.

Q Do you know from which source?

A From the Ontario Power Company.

Q Was it from the San Antonio Canyon, or from the Cucamonga side, from the Eadie tunnel?

A I don't know.

Q Did that arrangement continue with the Pacific Light and Power Company for the time mentioned here, that is for the ensuing year, beginning May first?

A It continued for that season I believe.

Q No longer?

A My impression is that it did not continue any longer.

Q Where was it used by the Pacific Light and Power Company, that water?

A I believe it was used in the domestic system of what is called the south side in Ontario; that is south of the

Southern Pacific Railroad, by a corporation that I think is called the Domestic Water Company.

Q Is that outside of the Ontario Colony?

A It is not; it is right in Ontario Colony.

Q What had the Pacific Light and Power Company to do with furnishing domestic water there, inside of the City of Ontario, or in the Colony limits?

A I think the Pacific Light and Power Company, and their associates, were the owners of the Domestic Water Company.

Q Did the Ontario Power Company receive that rental of $150 per inch?

A I believe they did.

Q Look, if you please, at a resolution or instruction, or recommendation of the board of directors of the San Antonio Water Company, February 17, 1904, concerning some negotiation with Sourwine.

A I have that here.

Q Read it if you please; give the date and where it appears.

A In the minutes of the board of directors of the San Antonio Water Company, at page 156, dated February 17, 1904; it appears in those minutes that the secretary and manager of the Ontario Power Company were requested by this board to be a committee to negotiate with J. A. Sourwine, for the furnishing of electric power for pumping the Upland Company's wells near Cucamonga, with power to act.

Q At that time you were the secretary?

A Yes, sir.

Q I suppose you carried out that resolution by negotiating with Mr Sourwine?

A I think we did.

Q Yourself and Mr Locke?

A Yes, sir; that is my present recollection of it.

Q Did you as such committee make a contract or other arrangement with Sourwine, for furnishing to him or to his company electric power to pump the Valencia Water Company's wells?

A Yes, sir.

Q Was that the well which has been called here the Sourwine well, some half or three quarters of a mile northerly from the Haskell wells?

A Yes, sir.

Q Turn to a resolution of the board of directors of the San Antonio Water Company, of March 2, 1904, touching the action to be taken by the Ontario Power Company for the purchase of a generator of power, for use at the Haskell wells.

A Yes, sir; I have that.

Q Do you find that resolution?

A Yes, sir.

Q Read the action, whatever it is, resolution, or whatever it is; give the date and where it is found if you please.

A It is at a meeting of the Board of Directors of the San Antonio Water Company, held March 2, 1904, at page 159 of the minutes; it states that on motion of J. T. Lindley it was resolved that it is the sense of this board that the Ontario Power Company should purchase a hundred-kilowatt generator for use at the 16th street or Haskell wells, unless otherwise ordered by this board of directors.

Q Was such a generator procured?

A I don't remember.

Q On the same date, at page 160, do you find a resolution calling on the secretary for an itemized statement of transactions of the two companies, to be submitted to the directors of the San Antonio Water Company for approval?

A I find the following: Resolved that the secretary of the San Antonio Water Company be hereby instructed to prepare an itemized yearly statement of all transactions of the San Antonio Water Company and the Ontario Power Company, the first of November of each year, namely: of all collections from assessed water stock; of all income from electrical power and light or other sources, stating foe what and from whom received; of all bills for labor, machinery, materials, salaries or other expenses, stating for what and to whom the bills were paid; the same shall be submitted to the directors for approval, and a printed copy sent to each stockholder.

Q Anything said in the minutes of the same meeting about guaranteeing any indebtedness of the Ontario Power Company?

A The following statement is made: Whereas, the Ontario Power Company is about to borrow $4000 from Mrs Marcella M. Inglis, for the term of thirty six months, and execure its promissory note therefor, resolved, that the president and secretary of this corporation , the San Antonio Water Company be and they are hereby authorized and instructed to guarantee the payment of said note by endorsement.

Q After the passage of that resolution did the secretary prepare the itemized statements there mentioned and submit the same to the directors?

A The itemized statement of both companies was gotten out out and printed; I presume, before it was printed, it had been submitted to the board of directors, but as to another it was or not I cannot now remember; but I do remember that a very large statement of the receipts and disbursements for that year was printed and sent to the stockholders.

Q Turn to the date of March 15, 1904, a resolution touching the appraisement of a certain Park Hotel building of the Ontario Power Company, page 161.

A Yes, sir.

Q Read it, if you please, giving the date and page as already stated.

A Date, March 15, 1904; minutes of the board of directors of the San Antonio Water Company; it is stated that Messrs. Leske and Hawkinson were appointed a committee to put a valuation upon the Park Hotel building, belonging to the Ontario Power Company, and report the same to this board.

Q Where is that Park Hotel building situated?

A Up near the Red Hills, on the lands of the Ontario Power Company.

Q Just a little to the west was it not of the Radio tunnel?

A Yes, sir.

Q It was an old building which had been used as a hotel, but which use had been abandoned, was it not?

A Yes, sir.

Q Well, did Messrs. Leske and Hawkinson put a valuation on that building and report it to the board?

A I don't know; I can't remember.

Q Look at the resolution of April 14, 1904, touching the

same hotel building, and possibly that may refresh your recollection; page 163 of the minutes of the San Antonio Water Company?

A I find at page 163 of the minutes of the San Antonio Water Company, April 14, 1904, stated here, that a recommendation be made by the board that the Ontario Power Company sell the hotel property near the Cucamonga Red Hills for a sum not less than $700.

Q Do you remember anything about a report made by Messrs. Leeke and Hawkinson, appraising or valuing the property at $700 or thereabouts?

A I can't remember of that committee having made a report.

Q Was the hotel building sold? Do you remember anything about that?

A My recollection is that the hotel building was sold some time after that but I don't think it was sold at that time.

Q It is not there now on the ground?

A It is not there.

Q It was sold and moved away?

A That is my recollection of the thing; but I think it was a good while after that; it might have been about that time and it might not.

Q Is there any resolution of the board of directors of the Ontario Power Company on that subject?

A I think not.

Q Mr Leeke went ahead and sold it didn't he?

A Yes; he had full power to transact all the business of the Ontario Power Company.

Q All right; May 24, 1904, do you find a resolution at page

22 179, concerning a report of Mr Richardson on the income of the Ontario Power Company?

A I see here at page 179 of the minutes of the board of directors of the San Antonio Water Company, dated May 24, '04 it is stated that the verbal report of Mr E.H.Richardson as to the income of the Ontario Power Company from electric cooking and heating department were accepted and approved.

Q Who was this Mr Richardson?

A He was the electrician for the Ontario Power Company.

Q What was this cooking andheating department of the Ontario Power Company?

A We sold power forcooking andheating purposes.

Q Mr Richardson made this report to the San Antonio Water Company board of directors, did he? Do you remember anything about it.

A I only remember the action taken from what is contained here on the minutes; I cannot recall the circumstance to mind at the present time whether he was present or whether it was was done by written report; it says here that it was a verbal report so that he musthave been present.

Q Turn to the minutes at page 185, June 30, 1904; do you find a resolution there concerning 10th street well number 1?

A At page 185, minutes of the board of directors of the San Antonio Water Company, on June 30, 1904, it was moved by A.F. Harwood, seconded by G.H. Graves, that well number 1 at 10th street be sunk to water-level, and that said well be equipped with a centrifugal pump.

Q Anything about installing a generator at the Haskell well?

A Moved by A.F. Harwood, seconded by L.L. Hawkinson, that a 100-horse power generator be installed at the Haskell well and attached to the two steam engines belonging to this company.

Q Is that the same generator which is referred to in the resolution of March 3, 1904?

A. It looks very much like it; but I think they are the same generator.

Q. What do you remember about that resolution that the well no. 1 at 16th Street be sunk to the water level and be equipped with a centrifugal pump: Hadn't the well been sunk to the water level previous to that time:

A. My recollection in looking over the accounts would lead me to believe that before that time the well had been sunk to the water level.

Q. And that the water level had dropped below the pumping machinery in thewell, or rather, below the bottom of the well, so that it had to be sunk deeper:

A. I don't know as to that, because they ordered a centrifugal pump at this time to be put in; and a centrifugal pump must be within 25 or 30 feet of the water level in order to raise the water. The deep well pump which we did use in the same well previously, the cylinder can be sunk down into thepipe. It is not necessary to have the pump head so close to the water.

Q. Do you remember any report being made to the board about the condition of the well at that time which led to thep assage of this resolution:

A. No; I cannot remember any report.

Q. Page 196, September 9, 1904. Do you find a resolution concerning the resignation of one Richardson and the appointment of one Paul an themployee of theOntario Power Company:

A. Page 196. Minutes of the board of Directors of the San Antonio Water Company, dated September 9, 1904; I find the following resolution: Whereas J. M. Richardson having

resigned his position with the Ontario Power Company, it is Resolved to recommend that the manager of the Ontario Power Company do accept said resignation and that he employ Karl W. Paul to fill his position at a salary of $100.00 per month.

Q. Did Mr. Richard on cease to perform the duties he had previously performed for the Ontario Power Company?

A. He did.

Q. And did the managers of the Ontario Power Company employ Karl W Paul to fill the vacancy at the salary mentioned?

A. Yes; I believe that is the salary.

Q. Is there any resolution in the nature of that in the minutes of the Ontario Power Company's directors?

A. I think not.

Q. Under date December 3, 1904, at page 212, you will find resolutions of the Board of Directors of the San Antonio Water Company concerning a note of the Ontario Power Company; also the compensation of Messrs Otis & Gregg on account of their services rendered to the Ontario Power Company.

Mr. [illegible].

Q. Read those resolutions, if you please.

A. Page 212, minutes of Board of Directors of the San Antonio Water Company, dated December 6, 1904:

Whereas the Ontario Power Company is about to borrow the sum of $3000.00 from Mrs. Marcella L Inglis for the term of 36 months, and execute its promissory note therefore, resolved that the president of this corporation, the San Antonio Water Company be and they are hereby authorized and instructed to guarantee the payment of said note by

ent. Then follows the form of the note.

Q. You needn't state that.

A. Further on it says:

An account for $2000.00 rendered by Messrs Otis L. Gregg against the Ontario Power Company for legal services was taken up, and it was recommended to the officers of the Ontario Power Company that they pay the sum of $1000.00 on said account by giving a promissory note at 90 days and that the account be again presented to this board at the next regular monthly meeting.

Q. Was that promissory note given accordingly?

A. I believe it was.

Q. Anything on the minutes of the board of directors of the Ontario Power Company on that subject?

A. I think it would have to be.

Q. Can you find it?

A. Yes; I find on page 142, dated December 6, 1904, a resolution which states:

Resolved that the Ontario Power Company, being indebted to Messrs Otis L. Gregg in the sum of $1,000.00, will execute its promissory note therefore in the following words and figures.

Q. I don't care anything about the form of the note.

Mr. Gregg: We will stipulate that the note was paid by the Ontario Power Company.

Mr. Britt: With the recommendation of the San Antonio Water Company?

Mr. Gregg: No; we had nothing to do with that.

Mr. Britt: I say that the San Antonio Water Company recommended that they give the note to you.

Mr. Gregg: We are obliged to them for their kindly feeling.

Q. Anything further in that resolution about the note to Mrs. Inglis?

A. Yes; there is another resolution:

Resolved that the Ontario Power Company will borrow from Mrs. Marcella G. Inglis $3,000.00 and will execute its promissory note therefor, in the following words and figures, to-wit:

Then follows the note.

In accordance with the resolution of the Board of Directors of the San Antonio Water Company. The above note was guaranteed by the San Antonio Water Company by indorsement in the following words:

Q. Give the words:

A. "For value received the San Antonio Water Company, a corporation, do hereby waive presentation of the within note to the maker, demand for payment, protest and notice of non-payment , and do guarantee payment of the same.

Q. Under date of December 17, page 213, minutes of the Board of Directors of the San Antonio Water Company, do you see anything about a leave of absence to be granted to the manager of the Ontario Power Company?

A. On the minutes of the San Antonio Water Company dated December 17, 1904, at page 213, it was moved by XXXXXXXXXXXX W. H. Jolliffe seconded by W. H. Harwood that W. T. Locke

president of this company is hereby xxxxxxxxx granted a leave of absence for the term of 60 days, beginning January 2, 1905, and that the San Antonio Water Company recommend that the directors of the Ontario Power Company grant a leave of absence during the same period to Mr. Locke as manager of that company.

Q Did Mr. Locke enjoy that leave of absence accordingly?

A I think it is very likely he did.

Q Do you find a similar resolution on the minutes of the Ontario Power Company? xxx page

A It states here on the minutes of the Board of Directors of the Ontario Power Company at page 144, dated December 20, 1904.

It was resolved that a leave of absence for the term of 60 days from January 2 is hereby granted to W. T. Locke the manager of the company.

Q At page 218 of the minutes do you find any resolution of the board of directors of the San Antonio Water Company about a purchase by the Ontario Power Company of certain supplies? That was a special meeting, wasn't it?

A Yes, sir.

Q And this was the only business transacted at that meeting?

A That is the only business that is put on the record. There might have been lots of other business done in the way of talk which didn't go on the records.

Q What was recorded about the business of the Ontario Power Company?

A Page 218, minutes San Antonio Water Company, December 26, 1905--

Q '4, isn't it?

A This is 1905.

Q Isn't that a mistake in the date?

A It might be. Yes; that must be a clerical error. A special meeting of the board of directors of the San Antonio Water Company was held on the above written date at 3 o'clock p. m. On motion by unanimous vote it was recommended that the Ontario Power Company purchase a lot of transformers from the General Electric Company on a trading proposition which was submitted at the time by Mr. Paul, the electrician.

Q Was that recommendation carried out?

A Yes, sir.

Q January 6, 1905. do you find in the minutes of the San Antonio Water Company the appointment of a committee to confer with parties who ~~xxxxx xxxxxxxxx xxxx~~ had some business to transact with the Ontario Power Company,-- Harwood and Childs appointed?

A The minutes of the San Antonio Water Company, page 219, January 6, 1905: It was on motion of A. H. Jolliffe seconded by G. H. Graves, a committee consisting of Messrs ~~xxxx~~ Harwood and Childs was appointed to confer with parties wishing to contract ~~xxxx xxx xxxxx xxxxxxx~~ for power from the Ontario Power Company for the purpose of ascertaining on what terms a contract can be made.

Q Did Harwood and Childs have such a conference with the parties who wanted to contract with the Ontario Power Company?

A I don't remember that.

Q You don't remember any report they made?

A No, sir.

Q On January 17, 1905, do you find a resolution of the directors of the San Antonio Water Company touching the contract of the Ontario Power Company with parties who desired power for pumping purposes-- Mourwine being one of the parties to be notified?

A On theminutes of the board of directors of the Ontario Power Company at page 222 and dated January 17, ;905, it was moved by A. H. Jolliffe and seconded by J. . Childs that the Ontario Power Company notify the parties who were furnished with power for pumping purposes last year that the company will enter into contracts to supply power for the future, Mr. J. H. Mourwine to be included with those to be notified; and that Mrsars. Harwood and Childs., a committee appointed at the last meeting, are continued as a committee with power to act and to make contracts.

Q Did they act and make contracts?

A I don't remember; if they did it would be only verbal contracts which would have to be carried out by the Ontario Power Company. While this motion states "with power to act and make contracts" they certainly couldn't make written contracts with theOntario Power Company.

Q The Ontario Power Company didn't fail to enter into any arrangement that was directed by the directors of the San Antonio Water Company, did it?

A I think as a rule they carried out the recommendations of the San Antonio Water Company.

Q At page 222 see if you can find a resolution about obtaining an auxiliary steam plant to be erected for the Ontario Power Company.

A At the same meeting of the board of directors it was moved by G. E. Graves and seconded by J. H. Jolliffe that the services of Mr. Adamson of Claremont be secured for the purpose of consulting with the Board of Directors in regard to an auxiliary steam plant to be erected at the sub-station of the Ontario Power Company.

Q Did Mr. Adamson consult with the board of directors on that subject?

A I think he did.

Q Was any auxiliary steam plant erected?

A Not at that time.

Q Was it afterwards?

A There has been a plant put in since that time, but it had nothing to do with Mr. Adamson or his recommendation.

Q Is there anything in the minutes of the board of directors of the Ontario Power Company about consulting with Adamson on this subject?

A My recollection is that there was nothing, but I will hunt the records if you want me to.

Q I am willing to take your recollection about it.

A The board of directors of the Ontario Power Company only met and transacted legal business that it was compelled to transact, in the way of authorizing notes and things of that kind.

Q Routine business?

A Yes, sir. Mr. Locke as manager transacted all the business.

Q Look at page ~~XXX~~ 241 of the minutes of May 18, 1905, of the San Antonio Water Company about the payment to Messrs

Otis & Gregg & Surr by the Ontario Power Company.

Q Minutes of San Antonio Water Company board of directors at page 241, May 18, 1905 , the following statement occurs: The payment of account of Otis Gregg & Surr by voucher no. 3781 and the payment made by the San Antonio Water Company by voucher no. 7511 were approved by the board of directors.

Q June 20, 1905, do you find a resolution of the board of directors of the San Antonio Water Company about a contract there with one Crawford made by the Ontario Power Company:

A On theminutesof the board of directors of the San Antonio Water Company on page 250, dated June 20, 1905, is the following statement: The draft of a contract made by Ontario Power Company with David and John Crawford being read, the terms of which were satisfactory to the board, it was recommended that theOntario Power Company should execute said contract.

Q What was thepurpose of said contract-- the subject of it?

A To furnish power to pump a well.

Q Where was the well situated?

A Situated on A street west of Ontario two or three miles.

Q Did the Ontario Power Company execute that contract?

A I think it did not.

Q Do you know for what reason?

A No, sir; but I know it was not executed at that time.

Q Did Crawford receive the power to furnish the well?

A They did.

Q From whom?

A Ontario Power Company.

Q The Ontario Power Company supplied thepower without any formal contract?

A Without any formal contract at that time.

Q June 20, 1905, do you find any resolution about a bulkhead in the Cucamonga tunnel, page 250.?

A At the same meeting of the board of directors which I have just read Mr. L. H. Jolliffe was appointed a committee of one to consult with the company's attorneys Messrs Otis & Gregg in regard to havxing a bulkhead put into the Cucamonga tunnel.

Q That is the Lady Tunnel/?

A That is the Lady Tunnel.

Q That bulkhead was put into the tunnel on property of the Ontario Power Company?

A Yes; theOntario Power Company was the owner of all that land there. The San Antonio Water Company has an interest in the tunnel and a right of way over and above the tunnel 40 feet wide etc.

Q Is there an agreement in writing between the two companies defining their respective interests in the tunnel--this right of way that you speak of?

A No; I just remember all those details from the things that I read over. TheSan Antonio Water Company gots right of way there when it got this 130 inches of water and it was reserved to theSan Antonio Water Company at the time the sale was made of the stock to the San Antonio Water Company.

Q That bulkhead which Mr. Jolliffe was appointed to consult about was afterwards put in on theland of the Ontario Power Company?

A That bulkhead was put in afterwards, but I think it was a good while afterwards. I don't remember the date. And it was the Ontario Power Company that owns all that land subject to certain easements of the San Antonio Water Company.

Q At page 254, June 27, 1905, do you find any instructions to the manager of the Ontario Power Company about disposing of some lands in the San Antonio Canyon?

A On the minutes of the board of directors of the San Antonio Water Company at page 254, dated June 27, 1905, the following statement is made:

The manager of the Ontario Power Company was instructed on behalf of that company to sell or exchange a piece of land in San Antonio Canyon as might be agreed upon between Mr. Herckhoff and himself.

Q Was that instruction carried out and was the land exchanged upon agreement between Mr. Cooke and Mr. Herckhoff?

A My recollection is that it was.

Q Do you find any resolution on this subject in the minutes of the board of directors of the Ontario Power Company?

A No; I don't find anything on the minutes of the Ontario Power Company.

Q Under date September 18, 1905, page 258 of the minutes of the directors of the San Antonio Water Company do you find a record of the appointment of a committee to make rates for electric power for manufacturing purposes to be started

in Ontario-- Messrs Locke, Jolliffe and Chiles?

A Before reading this, Mr. Britt, it has just occurred to me that thelast question in regard to the exchange of that land, it might be that I am mistaken , from the fact of not finding anything on the minutes of the Ontario Power Company, and it is quite probable that exchange may not have been made. My reason is that the directors of the Ontario Power Company would probably have to sign the deeds, and I don't find anything on the Ontario Power Company's record, and consequently, the deal may not have been made

Q On the minutes of the San Antonio Water Company at page ---- date, September 18, 1905, it was stated:

The following committee was appointed on thematter of making rates for electric power formanufacturing purposes to be started in Ontario.. Messrs Locke, Jolliffe and Chiles.

Q The San Antonio Water Company was not engaged in the business of generating electric power, was it?

A No; not except through the Ontario Power Company

Q That was part of thebusiness of theOntario Power Company?

A That was part of thebusiness of the Ontario Power Company.

Q Do you remember what this manufacturing proposition mentioned there was-- whether it was something had in view to be started in Ontario with power supplied by the Ontario Power Company?

A No; I can't remember; I think it was in connection with giving, possibly, lower rates to encourage manufacturing

industries there in the town.

Q That is, low rates by the Ontario Power Company?

A Yes, sir.

Q At page 265 do you find resolutions about itaking up a certain note of the San Atonio Water Company with another note of its own and also a note of the Ontario Power Company, in favor of the Citizens National Bank?

A The minutes of the Board of Directors of the San Antonio Water Company on page 265, October 17, 1905, it is stated: That on motion the secretary and president were authorized to renew this company's note for $25,000.00 at the Citizens National Bank at Los Angeles by giving a new note for the sum of $20,000.00 and the Ontario Power Company to give a note for $5,000.00.

Q Do you know whether that arrangement was carried out?

A I don't remember.

Q Have you any book of accounts, bills receivable or bills payable which will show whether that arrangement was carried out?

A These minutes should show it later on.

Q All right. On thesame page I want to ask you about another resolution: Do you find any resolution there relative to the appointment of a committee for obtaining water from the Upland Water Company's well for the Rubio ranch?

A It is stated that another committee consisting of Messrs Jolliffe and Childs and Locke was appointed for the purpose of conferring with J. H. Sourwine relative to obtaining water from the Upland Water Company's well for the Rubio ranch and

other purposes, and to report to this board.

Q Do you know whether any arrangement was made by that company with Sourwine or with the Upland Water Company, to obtain water from its well to use on the Autio ranch?

A My recollection is that they never did get any water from the Sourwine well for that purpose.

Q On the same page do you find a resolution concerning a contract between the Ontario Power Company and the Pacific Electric Heating Company?

A As it is stated on that same page, that the proposed contract for power, between the Ontario Power Company and the Pacific Electric Heating Company was submitted, and it was ~~xxxxxxxx~~ recommended by the board that the Ontario Power Company enter into said contract.

Q Do you know whether the Ontario Power Company did enter into that contract?

A My recollection is that they did, either at that time or later; such a contract is in existence now-- the contract for supplying that company.

Q With electric power?

A Yes, sir.

Q Is there any resolution touching the same subject in the minutes of the Ontario Power Company?

A I don't find anything on the minutes of the board of directors of the Ontario Power Company about that contract. But I think I am quite sure that Mr. Loske as manager of the Ontario Power Company went ahead and made that contract. I think it is now in existence.

Q At page 266, on November 17, 1905, do you find a resolution for the installation of a turbine steam plant by the Ontario Power Company at a cost of $36,000.00?

A On page 266 of the minutes of the board of directors of the San Antonio Water Company dated November 17, 1905, it was stated On motion of A. F. Harwood seconded by A. M. Jolliffe it was resolved that this board should recommend to the stockholders the installation by the Ontario Power company of a turbine steam plant of the Warren type at an estimated cost of $36,000.00 for a 500-kilowatt unit.

Q Was there such a plant installed?

A It was not.

Q Do you know why?

A I think it was found that the turbine steam plant of the Warren type was notany good and they dropped it.

Q November 20, 1905, stockholders meeting San Antonio Water Company: Do you find a resolution there about exporting the accounts of both companies, the San Antonio and the Ontario Power Company? -- page 271.

A Yes, sir; I find that resolution.

Q Read it if you please.

A The following resolution introduced by A. F. Harwood and seconded by J. L. Paul was carried by unanimous vote. This is at a meeting of the stockholders of the San Antonio Water Company.

Resolved that it is the sense of the stockholders of the San Antonio Water Company here assembled in annual meeting that the time is ripe when the books of this corporation should

be experted with a view to ascertaining the exact financial situation not only of the San Antonio Water Company but of the Ontario Power Company; therefore be it resolved that the board of directors this day elected for the ensuing year be and they are hereby ~~authorized~~ instructed and directed to at once employ competent chartered accountants to thoroughly expert said books and accounts; and resolved, that when we this day adjourn it be at the call of the president to hear and take actoin upon the report of said chartered experts accountants, which must be submitted in writing.

Q At page 275 of the minutes of these re of directors, December 16, 1905, do you find a recommendation for the sale of that 100 K. generator?

A Yes, sir It was recommended that the Ontario Power Company make a sale of the 100 K. generator owned by them; that the matter be left in the hands of the manager of that company, and he is hereby authorized to sell same at a price that he may consider reasonable.

Q Was the generator sold?

A It was not.

Q Why not?

A Give it up . I don't know.

Q Is it still owned by the company?

A It is.

Q In use at the Haskell well?

A No, sir; at the cementation at Upland.

Q At page 276 of the minutes do you find a recommendation about plowing up certain lands and the planting of eucalyptus trees?

A I did.

Q Read it if you please.

A On motion of Mr. Joliffe seconded by Mr. Frankish it was recommended that the manager of the Ontario Power Company plow up certain lands owned by that company on 10th Street for the purpose of planting eucalyptus.

Q Is that all on that subject?

A That is all on that subject.

Q Were thelands plowed up?

A Some lands were plowed up there for that purpose.

Q Were the eucalyptus trees planted?

A Yes, sir.

Q Do you find any resolution on that subject:

A On the minutes of the board of directors of the Ontario Power Company? No, sir; this is a recommendation to the manager and not to the board of directors.

Q The manager didn't wait for any resolution by the board of directors of the Ontario Power Company:

A He did now; he very seldom did; he transacted all the business of the Ontario Power Company that he could without calling a meeting of the board of directors of the Power Company.

January 18, 1906, page 279, see what he says about the reports on the books and accounts of the two companies.

A ~~Xx xxyx~~ "The reports ~~xx xxx xxxxx~~ of Mr. A. H. Spencer on the condition of the accounts and books of the San Antonio Water Company and the Ontario Power Company were read and on motion of L. H. Jolliffe same were ordered placed

on file. Los Angeles, Cal., January 17, 1906. The directors of the San Antonio Water Company: Gentlemen: Having thoroughly examined the books, vouchers etc. of the both companies from November 1901 to October 31, 1905, I herewith submit to you my report on same.

Mr. Britt: I don't care about that report unless counsel on the other side desire it read.

Mr. McKinley: We don't care for it.

Q. Will you refer to page 284, January 18, 1906, a resolution touching certain stock of the San Antonio Water Company owned by the Ontario Power Company?

A. I find that on page 284 of the records of the board of directors of the San Antonio Water Company it was stated: Resolved that the capital stock of the San Antonio Water Company which is owned by the Ontario Power Company be not voted at any stockholders' meeting of the San Antonio Water Company except when so recommended by the board of directors of the San Antonio Water Company.

Q. How much of the stock of the San Antonio Water Company was held by the Ontario Power Company?

A. I think it was about fifty shares.

Q. Was it the custom in the transaction of the business of those companies to furnish water to the Ontario Power Company on those shares?

A. It was.

Q. Was that resolution carried out and the stock not voted?

A. I think it certainly was.

Q. At page 285 of the stockholders meeting of January 30,

1906, is thereanything there about thereport or reports of the expert accountant on the accounts of the Ontario Power Company?

A Yes, sir.

Q This is a meeting of the stockholders of the San Antonio Water Company?

A Yes, sir.

Q Held when?

A January 30, 1906.

Q What business was transacted on thesubject of last report?

A The report of A. E. Spencer who had audited the accounts of the San Antonio Water Company and the Ontario Power Company was then read. On motion of J. T. Lindley thereport of the San Antonio Water Company as read was received, approved and ordered spread on the minutes.

Q Anything farther on the subject?

A On motion of J. L. Paul Mr. Spencer's report on thebooks and accounts, assets and liabilities of the Ontario Power Company were read and ordered spread upon the minutes.

Q Was this resolution carried out and was the report of Mr. Spencer spread upon the minutes accordingly?

A Looking through theminutes subsequent to that date I do not find about that time that Mr. Spencer's report was spread on the minutes of the meetings.

Q On March 3, 1906, page 297, do you find an entry showing or touching a report on the subject of a contract of the Pacific Coast Manufacturing Company with the Ontario Power Company?

A On page 297, March 3, 1906, it states: The committee appointed at last meeting reported a recommendation for the awarding of a contract for the erection of a steam plant to The Pacific Coast Manufacturing Company, they being the lowest bidder. On motion the report was accepted. On motion it was recommended that the Ontario Power Company enter into a contract with the Pacific Coast Manufacturing Company for the erection of a steam plant at a cost of $23,924.00.

Q Anything about contracts to be prepared?

A On motion Mr. Jolliffe was employed as an attorney to prepare the contract.

Q Was the contract prepared by Mr. Jolliffe accordingly?

A I don't know. I was absent at that time, but I do know that the steam plant was put in there, and I think it was with that company.

Q The Pacific Coast Manufacturing Company?

A Yes; that is my recollection of it.

Q That is, a steam plant for the Ontario Power Company?

A Yes, sir;

Q Is it in operation now?

A Yes, sir.

Q Do you find anything on that subject on the minutes of the Ontario Power Company?

A In the minutes of the board of directors of the Ontario Power Company at page 148, dated March 21, 1906, it was stated:

On motion Mr. T. Leeke, manager, was authorized to make a contract with the Pacific Coast Manufacturing Company for the erection of a steam plant to cost $23,924.00 and to

sign such contract as manager of the company.

Q Page 300, minutes of the San Antonio Water Company: Do you find a resolution there or other acts done by the board of directors of the last mentioned company concerning application of Panter who wanted to be employed by the Ontario Power Company?

A Yes, sir; I find that on the minutes of the board of directors of the San Antonio Water Company at page 300, dated March 17, 1906; it was stated that a written application and credentials of Mr. Panter were read, applying for the position of chief electrician for th Ontario Power Company. J. T. Locke and A. M. Jolliffe and C. Frankish were appointed a committee to confer with Mr . Panter with power to act. The above committee were also authorized to purchase a safe for the office. The committee previously appointed reported the completion of the contract with the Pacific Coast Manufacturing Company for the erection of a steam plant for $25,924.00; the report was accepted and the contract placed on file

Q Do you find anything on that same page about some expenditures for printers ink in Los Angeles?

A On motion the President was authorized to send $20.00 to the Los Angeles Times for a special writup for the San Antonio Water Company and the Ontario Power Company in the La Fiesta Special Issue of the Times.

Q Was that man Panter appointed to the position of chief electrician of the Ontario Power Company:

A I don't know; I was absent during his regime, if he was ever appointed.

Q. Do you know who is chief electrician now? Well, that is not important. Do you know who ever hunter ever served in that capacity?

A. I have been told that he did for a short time.

Q. Pages 305-306, April 17, 1906: Do you find a resolution recommending that the Ontario Power Company sell to Atwood and Walline certain land and also contract with them about pumping a well?

A. Yes, sir.

Q. Read it please.

A. On motion the following resolution was adopted: Resolved that for and in consideration of one dollar and other considerations this corporation do sell unto J. J. Atwood and to F. A. Walline a right of way for a road as xxxxxx said road is traveled across and over lot 6 in block 20 of the tract of land of the Cucamonga Homestead Association in San Bernardino county, California. Reference is made to a plat of said tract of land of record in book 6 of Maps at page 46, records of said county. Said right of way to extend from 16th Street on the south side of said lot 6 to the well known as the Rubio well near the northeast corner of said lot 6, reserving to this corporation the right to use said right of way, also for road purposes; and the president and secretary are instructed to make, execute and deliver to the purchasers a proper deed of conveyance to such right of way and to affix to said deed the corporate xxxx name and seal. On motion the board recommended that the Ontario Power Company sell to J. J. Atwood and F. A. Walline a strip of land 33 feet wide lying immediately north of and

adjoining lots no. 11 and 5 of Mechomestead Association tract.

Q Anything further about the action of the Ontario Power Company in contracting with them about pumping the well or a well:

A On motion the board recommended that the Ontario Power Company enter into a contract with J. J. Atwood and J. A. Walline to pump theirwell for a period of five years with the privilege of a like contract for a second period of five years if said J. J. Atwood and J. A. Walline so desire.

Q Did the Ontario Power Company convey that strip of land to Atwood and Walline as described in that resolution of April 17, 1906:

A I don't know; I was away about that time.

Q Do you find on thesame page a recommendation that the Ontario Power Company pay Adamson, consulting engineer, $150.00 on account:

A On motion it was recommended that theOntario Power Company pay J. H. Adamson, consulting engineer, $150.00 on account.

Q Do you know whether the money was paid accordingly:

A I do not.

Q May 1st, 1906, page 311: Do you find a resolution of the board of directors of the San Antonio Water Company concerning a contract of the Ontario Power Company with the Italian Vineyard Company:

A It reads as follows: The president reported that the Italian Vineyard Company were ready to enter into a contract with the Ontario Power Company for electric light and power

and on motion it was recommended that the Ontario Power Company enter into such contract with them.

Q Was such a contract made?

A A contract was made with them.

Q That is, with the Italian Vineyard Company?

A Yes, sir.

Q By the Ontario Power Company?

A Yes, sir.

Q May 13, 1906, do you find resolutions of the board of directors of the San Antonio Water Company on the same subject of that Italian Vineyard Company contract, and also concerning the lighting charges of the Ontario Power Company?

A Page 312, May 18, 1906: By unanimous consent it was recommended that the Ontario Power Company reduce the lighting schedule to a 13-cent base rate. The president reported that the Ontario Power Company had completed a contract with the Italian Vineyard Company for a period of 10 years.

Q Did the Ontario Power Company reduce its lighting schedule to a 13 cent base rate?

A That is my recollection; I think it did.

Q June 13, 1906: Do you find a resolution of the board of directors of the San Antonio Water Company about auditing the books of the two companies that we are speaking of?

A It is stated that the president was authorized to communicate with Mr. W. H. Spencer, certified public accountant, and secure a written proposition to audit the books by the year of the San Antonio Water Company and the Ontario Power Company.

Q. At page 316 do you find a further resolution or action taken concerning the auditing of these books?

A. It states on that page that on motion of A. F. Harwood H. H. Spencer's proposition to audit the books for the current year of the San Antonio Water Company and the Ontario Power Company was accepted.

Q. Do you know whether Mr. Spencer did audit the books of both companies?

A. No; I do not.

Q. At pages 327, September 13, 1906, do you find any entry of the action of the board of directors of the San Antonio Water Company relative to borrowing money of the Ontario Power Company?

A. I find that it was moved by A. F. Harwood and seconded by G. E. Graves that thepresident A. T. Locke, C. Frankish and C. E. Harwood be appointed a committee to negotiate a loan for the Ontario Power Company of not less than $30,000.

Q. Is there any such resolution on the minutes of the board of directors of the Ontario Power Company?

A. I think not.

Q. November 1st, 1907. page 368: Do you find a resolution concerning the employment of a superintendent of the Ontario Power Company?

A. I find on page 368, February 18 1907, the president reported that T.A. Panter, electrical superintendent, would discontinue his services with the Ontario Power Company April 1st. A letter from A. T. Smith of Provo Utah applying for theposition was read. President was authorized to communicate with him by telegram; also to secure recommen-

dation from his previous employers the _____ Power Company, and if the same prove satisfactory to employ him as electrical superintendant of the Ontario Power Company at a salary of ~~xxx~~ $125 per month.

Q. Do you know whether Mr. Smith was so employed?

A. I don't know, but I don't think he was.

Q. April 18, 1907, page 376: Do you find a resolution of the board of directors of the San Antonio ~~xxxxx~~ Water Company concerning the management of the Ontario Power Company?

A. On that page it is stated that it was moved by C. Frankish, seconded by L. H. Jolliffe that the management of the Ontario Power Company remain as it is until the end of the fiscal year.

Q. At page 385, of date May 18, 1907, do you find anything concerning the rates to be charged for water by the Ontario Power Company?

A. It states that it was moved by J. H. Graves, seconded by F. C. Crowell that this board recommend that the rate charged by the Ontario Power Company for the current year for domestic water be placed at $1.00 per month.

Q. Do you know whether that was the rate charged by the Ontario Power Company for that year?

A. I do not.

Q. You were a member of the board of directors at that time of the Ontario Power Company?

A. Well, I don't know.

Q. Is there anything on that subject in the minutes of the directors of the Ontario Power Company?

A. I think not. Those matters seem all to have been left to

Mr. Locke to manage the company as manager.

Q. Under the direction of the board of directors of the San Antonio Water Company.

A. And under the contract that he had with them.

Q. Do you know whether or not Mr. Locke was accustomed to carry out the recommendations of the San Antonio Water Company?

A. As a rule he usually did so.

Re Direct Examination.

Mr. McKinley: Q. Mr. Shepherd, what sort of a vineyard was this that you spoke of , raisins or wine grapes?-- The one in Ontario?

A. That was raisin grapes.

Q. When was it irrigated?

A. Early in the spring.

Q. Any other time?

A. No, sir.

Q. Have you any ~~xxxx~~ ~~xxxx~~ bills there with reference to the pumping of well no. 14 in 1908?

A. Yes, sir.

Q. Will you produce those? I mean the bill for electric power and also the bill for some work done in connection with that well. What is this bill?

A. That is a bill from the San Gabriel Electric Company for power used between May 1st and May 20, 1908, for pumping the Stowell well-- what is known as no. 14. The amount of the bill is $478.55.

Mr. Haskell: Do you know what kind of a pump was being used with that power?

A. Centrifugal pump.

Q. Do you know how high the top of the casing of well no. 14 was above the floor of the Lady Tunnel--

Mr. McKinley: I suppose this is general cross examination. I will be through in a moment.

Mr. Haskell; Oh, I thought you were through.

Mr. McKinley; No, I had another bill.

I offer this in evidence. Defendants' exhibit U.

Q. What is the bill you have here? Do some of the items of that bill refer to the Stowell well

A. Yes, sir.

Q. (Bill read)

A. On June 2, 1902, there was cutting 8-inch pipe, 40 cents; work ordered by Gandere who was the engineer. Used on the Stowell well. And on the 5th there was boring and tapping ell-- that means a pipe ell-- elbow-- 60 cents. 1 1" stop cock, 1X113½ nipple, all of which was used for the Stowell well. That was, I believe, the siphon that was put into that well by the Ontario Power Company at that time.

Q. That well do you mean by the Stowell well?No. 14?

A. No. 14.

Mr. McKinley: We offer this bill in evidence.

Marked Defendants' EXHIBIT V.

Q. With regard to that vineyard, I don't know whether I am clear or not with regard to that spring irrigation: Do you mean only oneirrigation?

A. I meant one irrigation.

Re-Cross Examination.

Mr. Haskell: Q This centrifugal pump was placed at the water level of the well, was it not?

A I don't know.

Do you know how high above the floor of the tunnel the pump was placed?

A No, sir; I do not.

Q You don't know how high above the floor of the tunnel the siphon was placed?

A I do not.

Mr. Britt: About that vineyard, were you present to see when it was irrigated?

A I was not.

Q It was notirrigated in the spring before the dry season set in, was it? It wasn't irrigated before the ground was dry, was it?

A I got my information from the owner of theland and he said that he just irrigated the vineyard once early in the spring, about the time the vines began to grow, and during the balance of the summer he gave it no water but rented the stock out to otherparties.

Mr. Britt: We ask that thestatement of the witness concerning what he was told by the owner be stricken out as hearsay and incompetent.

Mr. McKinley: I would like to find out if he knows anything about it. Has your statement on direct examination based on the same sort of information?

A Yes, sir.

Mr. McKinley: We consent that it all be stricken out.

Mr. Britt: You have seen that vineyard yourself, haven't you?

A Yes, sir.

Q Did you know of water being applied by the San Antonio Water Company-- or supplied, rather,-- for the purpose of irrigation on it?

A Only from hearsay, just as the man told me as I stated before. I wasn't actually present and I didn't see the water running on theplace

Q Do you know whether he has any stock in theSan Antonio Water Company? You were secretary of the company for a good many years.

A I haven't been in theoffice for about three years.

Q Previous to that time was he a stockholder in the San Antonio Water Company?

A I don't know, because I don't knowwhat his name is. I just went out there and saw the man and he told me; he answered the questions frankly.

Q When did you go?

A About a week ago.

Q You went out for thepurpose of obtaining testimony ~~or~~ for this trial?

A I knew there was such questions to be asked and I knew there was a vineyard that looked well, and I went out to find out if he irrigated all summer or not, and he told me he didn't. He told me that he had only three shares of stock for his 10 acres and that he only irrigated in the early spring and that he rented his water to otherparties during the summer season.

Q You say his is a raisin vineyard?

A Yes, sir.

Q Do you know whether or not for the purpose of raising grapes that a vineyardist is more concerned, for raisins, with sugar in his grapes than in quantity of production?

A I am not posted on that.

Q You didn't find out what the name of this party was?

A I did at the time but it has slipped my memory.

Q Give us the place of his residence.

A He lives on the corner of K Street and Sultana Avenue in Ontario?

A Yes, sir.

Mr. Britt: I move that that the witness said on the subject of the vineyard may go out.

Mr. McKinley: That is, it all goes out?

Mr. Britt: Yes.

Mr. McKinley: All right.

Q Now I will inquire of you did you make any other investigation as to vineyards at the same time?

A I did not. That is the only place that I could think of in Ontario a short distance out, and I just went to see what information I could get

Q Have you such information elsewhere concerning the use of water for vineyards in that neighborhood?

A I have not.

Q You didn't go to any other vineyard?

A No, sir.

Q You spoke of the use of something or other here for the Stowell well-- a siphon for the Stowell well.

A. Yes, sir.

Q. Was there more than one well bearing that designation in the nomenclature of your company?

A. There might have been the '96 well in the earlier days, might have been called the Stowell well. But that well was cut off long ago at the tunnel level, and there is no work on it.

And you use the term "Stowell well" as referring to Well No. 14?

A. Yes, sir.

Q. You say this is a bill for pumping sometime in June or July, 1902.

A. It was June, 1902.

Q. That well was pumped--

Mr McKinley: The work was for May.

The well was then pumped to reduce the water level and facilitate the connection of the ~~shaft~~ tunnel with the well, wasn't it?

A. From the bill for the electric power it shows that there was power used there between May 1st and May 28; you can't tell from the bill whether it was continuously during that whole time or not or whether it was only a portion of the time. The bill simply says that the meter was read on May 1st and also on May 28 and records the amount of power that was used, and I am unable to say how long it was pumped during that month; but it appears to have stopped because I could find no further bills for power.

Q. Until what time, Mr. Shepherd? Until what time did it stop?

A The bill says that the meter was read on May 28; the pumping might have stopped 1, 2, 3, 5, 10 or 15 days or any time before that. They read their meter every month.

Q When was it pumped the not time?

A I don't know; not until the Ontario Power Company put in its own pumping plant, probably a year afterwards; I can't give the exact dates. But I do know that the Ontario Power Company did put in a pumping plant, and my recollection is that it was probably a year afterwards.

Q That would be some time in the summer of 1907?

A If it was the year afterwards it would be in the summer of 1908.

Mr. Britt: I haven't had time to examine this list of accounts; there are a great many of them delivered by Mr. Shepherd this morning, and I shall look over them this evening and I may desire to interrogate him some further and if so I ask the privilege of recalling him.

Mr. McKinley: Certainly; we are willing.

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W. T. LEECH, recalled for defendants, testified as follows:

Direct Examination.

Mr. McKinley: Q. It has been testified here that the water shed of the Cucamonga Canyon is shown by the line on map exhibit F: Will you state how much of the lands which are in citrus fruits irrigated by the San Antonio Water Company, and also lands of the City of Ontario, are outside of this line?

A. Between 11' and 1200 acres.

The Court: What is the purport of the question?

Mr. McKinley:

A. To ascertain how much of the lands were outside of this line of watershed.

The Court:

Q. That xxxxx line?

Mr. McKinley: The west line of the Cucamonga watershed as indicated on this map.

Q. What waters belonging to the Ontario Power Company are used by it for supplying domestic water to consumers?

A. Largely the waters from the Lady Tunnel and some water from the San Antonio Canyon.

Q. State whether there is any reason why the waters from the Lady tunnel are used where they can be in preference to the water from San Antonio?

A. They are considered more wholesome and more nearly pure.

Q. The Cucamonga waters?

A. Yes.

Q. Why are they more pure?

A. The Cucamonga water comes from the gravel beds deep in

the earth, and we consider water strained through those gravel beds of a greater degree of purity than the waters of a surface stream like the San Antonio Creek which is liable to become more or less polluted after rains.

Q You are familiar with this bill for furnishing power just introduced as exhibit U:

A Yes.

Q What was that power furnished for:

A That power was furnished for pumping well no. 14 during the month of May, at the time and for a short time after the Stowell well was acquired by the Ontario Power Company.

Q Referring to the other exhibit, exhibit V, in which there are some items referring to the Stowell well-- the cutting of the 8-inch pipe and some smaller items, will you state what work they were used in connection with:

A That was in connecting the well and the Lady tunnel with a siphon.

Q Referring to your testimony with regard to the taking of water from the wells and tunnel, to avoid any question, I want to ask you whether the waters taken by pumping were taken continuously during the irrigating season when you were pumping:

Mr. Britt: I object to that as calling for the opinion and conclusion of the witness and being entirely too general

Mr. Haskell: On the further ground that it admits of only one answer. He asks him whether they were taking it continuously when they were pumping.

Q I will ask you if the wells from the 16th Street-- if the waters from the 16th Street wells were taken by the San

Antonio Water Company and used for irrigation?

A. Yes; they were.

Mr. Britt: I object to the question as calling for the conclusion of the witness and that it is leading.

The Court: Overruled. Plaintiffs except.

Q. What is the fact with reference to waters pumped from the Haskell well?

A. They have been used in the colony of Ontario for the purpose of irrigation.

Q. And what is the fact with reference to the waters taken from the Eddy Tunnel and from wells 4 and 14-- the waters off of the 90-acre tract that passed through the tunnel?

A. They have been used for the purposes of irrigation and domestic use.

Q. During what seasons have they been used?

A. With the exception of 65 inches going to Chemonge during 1902 they have been used continuously since the acquisition of those wells and waters, for irrigation and domestic use in the colony of Ontario.

Mr. Britt: We ask that the expression that it was used continuously be stricken out as not responsive to the question and being a conclusion of the witness.

The Court: Overruled. Plaintiffs except.

Q. What do you mean by "continuously", Mr. Becker?

A. They were used during the irrigating season for irrigation and during the rest of the year as such waters were needed for domestic purposes.

Mr. Britt: I move to strike the answer out on the ground that it is not responsive to the question. He was asked

to state what he meant by continuously.

The Court: The motion is denied. Plaintiffs except.

Cross Examination.

Mr Britt: Q I suppose we have to narrow this room over again to see when they used the water. We have been weeks doing this and now he comes in with a sweeping declaration that it was used continuously. Mr. Locke, in the year 1888 the machinery for pumping that 16th Street well was frequently out of order, wasn't it?

A I don't remember that it was.

Q Did you measure the water at any time in 1890 fro that well?

A Not personally.

Q Did you see it measured at any time by any one who made a report to your company?

A I don't remember having seen it measured myself.

Q Mr. Chaffey made a report on that well, did he not, to the San Antonio Water Company?

A Yes, sir.

Q And portions of that report were printed and produced here last Friday-- a printed copy-- is that true?

A That is a copy of Mr. Chaffey's report.

Q Wasn't Mr. Chaffey's report more extensive than the copy that was produced here?

A I don't remember what other reports he made, but I think that was his entire report at that time, as printed.

Q Where is the original report of Mr. Chaffey?

A I don't know.

Q Have you ever seen it?

A I may have seen it but I don't remember at this time.

Q Is it in the custody of the secretary or other officers of the company at the present time?

A I don't know.

Q Do you know at what time in the season of 1898 the pupping of that 16th Street well or well no. 3 was commenced

A I can't give you the exact date.

Q Do you know when it ceased?

A I presue at the end of the irrigating season.

Q Was it purped by electric power?

A By gasoline engine.

Q The gasoline engine was first placed in position that season, was it?

A I am not sure about that.

Q Was it a new engine or one purchased by the San Antonio Water Company for the purpose of pumping that particular well?

A An engine had been placed there in previous years; I am not certain whether they used that engine or purchased a new one.

The Court: Q Can you find out by going to the books of accounts, records and vouchers of your company-- the San Antonio Water Company?

A It is possibly we might.

Q I will request you to have that done and inform us of the result of your search. We have had a good deal of testimony here about what wells were pumped in 1899, and I understand that your statement is that you never measured the water from that well no. 16 or saw it measured by anyone who made any report to your company , not only to the year '98 but

to the years '99 and subsequent years: Is that true?

A In subsequent years I saw it measured frequently.

Q In what years did you see it measured?

A In 1900 and continuously when pumped, from day to day during the summer season, and I may have seen it in the former years, but I don't recall the time.

Q But not previous to 1900?

A That is true.

Q Do you know who was the engineer carrying on the business of pumping at that well no. 3 in the year 1899?

A No; I do not.

Q Some person employed by you, was he?

A I think so.

Q Do you know where he lives at the present time or is he yet alive?

A I don't know; I don't remember the men that were in our employ from time to time; some of them I don't know personally.

Q Now those wells, commencing with 1900, intermitted or were intermittent in the pumping, were they not? Sometimes the well stopped for a few days for this, that or the other reason, somewhat as shown on these tables introduced by Mr. Frank?

A Subsequent to 1900?

Q Commencing with 1900 and the years following. The wells were not pumped all at once, were they? Generally there was only a part of them pumping till quite late in the season?

A That is true.

Take the year 1904. I notice from the table placed in

evidence here at page 52 of the reporter's transcript, that there are some of the wells that season that didn't begin pumping until comparatively late, and others commenced earlier. The Haskell well seemed to commence first that year. And that was so as a rule, was it not, every season?

A Sometimes we started one well pumping early and sometimes another one; we pumped the water as we needed it.

Q And I understand from you that the pumping plant there was at all times an auxiliary system to the source of supply of the San Antonio Canyon? You didn't incur expense of pumping except when your supply from the San Antonio Canyon was too slight to furnish the requirements of your stockholders?

A That is true.

Q To such an extent that in the year 1906 you didn't pump at all?

A It was in a wet year.

Q It wasn't any wetter than the year 1907? That is, than the season of 1906-7?

A The rain fall was so great that it caused our streams to hold up better than most years.

Q Now about the pumping of that well no. 14, were you present a good deal of the time when the pumping was going on? The well at the head of the Lady tunnel is the one I am speaking of now.

A What period of pumping do you refer to? I didn't remain there continuously, but I visited there frequently.

Q The first period of pumping that you remember occurred at what time-- what seasons? 1902, after the Ontario Power Company's plant was taken over by the San Antonio Water Com-

pany?

A About that time or shortly after

Q At that time what connection had been made between the tunnel and the large well?

A The connection was being made rapidly and it was nearly completed at that time. The water was being gotten out of the way for putting in the siphon.

Q It was to keep the water out of the ground, to keep the water from rising and flooding the men that were putting the siphon in the tunnel in the upper gallery.

Q In the fall of the year 1902-3 was there another period of pumping for the same purpose?

A About October, 1903, a 18-inch siphon was placed in the drift or gallery, a large pump connected or attached, and the water was forced through the siphon by the pump lowering the water in the well to the extent that the lower gallery could be connected.

Q When you speak of the lower gallery do you speak of the gallery which would run to a connection with the Lady Tunnel with the large well at the level of the tunnel?

A Yes, sir.

Q And that was kept up with considerable vigor for some months, was it?

A Yes, sir; the connection of the large gallery or the gallery on the level of the tunnel was made at once; but in order to be repair and complete the tunnel by piping and the back filling and placing in a shaft somewhat below 14 for the purpose of putting in a bulkhead, that work required that the lower gallery be free from water till the backfill-

ing and tamping was completed.

Q There wasn't any bulkhead put in at that time.

A Preparation for the bulkhead; but it was not put in at that time.

Q It wasn't put in till January or February, 1907.

A The bulkhead has never been put in at that point; it was put in much lower, down on the tunnel,-- much nearer its mouth.

Q And that pumping which you last described went on until the connection was made between the tunnel and well about January or February 1904?

A The connection with the well was made in 1903, and pumping went on in order to facilitate the lining of the tunnel with cement pipe and back filling the same.

Q What time in the year was the connection made in 1903?

A I think in November or December, 1903.

Q It was a matter of great difficulty to make that connection because of the saturated condition of the ground, was it not?

A After the pump had been in connection for a short time they experienced no great difficulty in making connection; there was considerable moisture; it was pretty wet, but they made the connection all right.

Q Wasn't it a matter of great difficulty, however, and even peril to the men engaged there because of the sliding in of the saturated ground through which the tunnel had to be driven to reach the wells in the fall of 1903--

A I don't think they experienced any greater difficulty in that lower gallery than in the upper ones. It was a dif-

ficult piece of work and was skillfully accomplished.

In the minutes of the Ontario Power Company, San Antonio Water Company, it appears of date December 31, 1903, that the Ontario Power Company was recommended to enter into a contract with Mr. McConnel for certain work on the Cucamonga Tunnel and shaft amounting to 965 dollars. Did you have charge of making that contract with McConnel?

A Yes, sir.

Q Was that a written contract with McConnel?

A Yes; type-written.

Q Is that ~~xxxxxxxxxx~~ in the custody of the company still?

A It was simply a memorandum contract.

Q Can it be produced here?

A I don't think it is in existence.

Q Do you know what became of it?

A I think it was burned in the fire in our office. That contract covered the filling of the tunnel with cement pipe, back-filling, and the work that was actually accomplished in placing the tunnel in such a condition that we could put in a bulkhead and retain the water, without endangering the tunnel work itself.

Q That bulkhead never was put in.

A Not at that place; it was put in further down on the tunnel.

Q You refer now to the bulkhead of January, 1907?

A Yes, sir.

Q At the time this contract authorized with McConnel, December 31, 1903, had the tunnel then been connected at the tunnel level with well no. 14?

A It had; yes.

Q Two weeks previous?

A A very short time previously. This was new work; this contract was new work; that is, work not pertaining to the gallery connecting the tunnel.

Q The water was discharging from the well through the tunnel?

A The water was then dischharging from the well through a siphon ~~xxxxx~~ forced through by the pump. And that continued while McConnel was taking up this new work of lining the tunnel with cement pipe. And the water was taken by means of the pump and siphon and was running through the tunnel, or was it running on to the ground up above?

A It was running through the second gallery into the tunnel.

Q And then where?

A Down through the lady tunnel and used for irrigation purposes at the end of the pipe lines.

Q You mean you were using the water for irrigation in the winter time?

A Yes; I am sure of it.

Q In the seasons following that connection-- that is, following 1904 and '5 ~~xxxx~~') ~~xxxxx~~ and 1906 and '7-- no, not after the construction of the bulkhead in 1907-- but during that intervening time were there any considerable periods when the water which escaped from the tunnel returned into the branch of the Cucamonga wash which runs over to the west of the Red Hill?

A During that entire time such waters as were needed

for domestic purposes was retained in the pipes.

Q During heavy rains when waters were not used or needed for irrigation, I suppose they were turned out somewhere?

A I don't know.

Q Wasn't it at times other than the heavy rains--Was there any time when they required water for irrigation

A In Ontario we do a great deal of irrigating.

But you don't irrigate through the winter.

A I have seen winters when we were glad to irrigate every month in the year.

Q But they were not winters since 1903-4, were they?

A During this present winter until a short time ago we did considerable irrigating.

Q What do you call a short time ago? Did you irrigate after the rains began in January?

A We irrigated up to that point.

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Here the Court takes a recess until to-morrow, Tuesday, March 30, 1908, at 10 o'clock a.m.

----------oOo----------

J. W. McKinley

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

Cucamonga Vineyard Co. et al

Plaintiff

vs.

San Antonio Water Co. et al.,

Defendant

Vol. 41,

Tuesday Mch. 30, 190

I. BENJAMIN, Official Reporter

Tuesday, March 30, 1909. Forty-first Day.

Mr. Jolliffe: I offer in evidence a commissioners deed from Henry Ingram, Commissioner, to the San Antonio Water Company proposing to convey the lands on which 16th Street wells are situated, being lots 361, 362, 363, 364, 415, 416, 417, and 418, of Ontario Colony Lands. It purports to be issued in case no. 7427, in which the San Antonio Water Company was plaintiff, and Charles Franklin, H. H. Franklin, O. T. Stams and others and the ~~xxx~~ Ontario Improvement Company were defendants

Said document is admitted in evidence and a copy, by request of defendants, inserted herein, as follows:

THIS INDENTURE, made the 30th day of September, 1899 by and between Henry Ingram, a commissioner appointed by the Superior Court of the County of San Bernardino, State of California, to carry into effect the judgment of said Court in the cause hereinafter referred to, as party of the first part, and the San Antonio Water Company, a corporation, the party of the second part, WITNESSETH:

That, Whereas, in and by virtue of a judgment duly given, entered and made by said Superior Court of said County of San Bernardino, bearing date the 3rd day of January, 1899, in an action wherein the San Antonio Water Company, a corporation, was plaintiff, and Charles Frankish, R. L. Frankish, G. T. Stamm, Ella Lyon, C. S. White, Charles O'Frankish, Ontario Land and Improvement Company, a corporation, et al., were defendants ( said action being case No. 7427 upon the records of said Superior Court), it was, among other things, ordered, adjudged and decreed, that the mortgaged premises and property described in the complaint in said action, and specifically described in said judgment, or so much thereof as would be sufficient to satisfy the plaintiff's demand for which judgment was rendered in said action, and the costs of said action, besides accruing costs, be sold according to law. Upon which judgment and order of sale a writ of execution was duly issued out of said Court, bearing date and duly attested the 11th day of January, 1899, reciting the material parts of said judgment, and to the said Henry Ingram, as commissioner as aforesaid, and the party of the first part herein, directed

and delivered, commanding and directing him to execute said judgment; and,

Whereas, the said Henry Ingram, as such commissioner, did, at the hour of eleven o'clock A.M., on the 4th day of February, 1899, after due public notice had been given as required by the laws of the State, and the course and practice of said Court, duly sell at public auction agreeably to said judgment and order of sale and the provisions of law, the premises and property aforesaid in said judgment mentioned, at which sale the said premises and property, which are hereinafter particularly described, were fairly struck off to the San Antonio Water Company, a corporation, the party of the second part herein, for the sum of Sixteen Thousand Seven Hundred and Thirty-two and 54/100 Dollars, ($16,732.54), in Gold Coin of the United States, said San Antonio Water Company, a corporation, being the highest and best bidder, and said sum being the highest sum bid for the same; and,

Whereas, the said San Antonio Water Company, a corporation, thereupon paid to the said Henry Ingram, as commissioner as aforesaid, said sum of money so bid by it; and,

Whereas, the said commissioner thereupon made and issued in duplicate the usual certificate of sale of said premises and property, and delivered one thereof to said purchaser and caused the other thereof to be filed in the office of the County Recorder of said County of San Bernardino, in which said County said premises and property

are situate; and,

Whereas, the period of six months and more has elapsed since the date of said sale and no redemption has been made of said premises and property so sold by or on behalf of the judgment debtors in said action, or by or on behalf of any other person entitled so to redeem, or at all:-

NOW THEREFORE, This Indenture Witnesseth: That the said party of the first part, as commissioner as aforesaid, in order to carry into effect the sale so made by him as aforesaid in pursuance of said judgment and decree and in conformity to the statute in such case made and provided, and also in consideration of the premises and the said sum of Sixteen Thousand Seven Hundred and Thirty-two and 54/100 Dollars ($16,732.54), so bid and paid by said purchaser, the San Antonio Water Company, a corporation, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto the said San Antonio Water Company, a corporation, and to its successors and assigns forever, all that certain property lying and being in the County of San Bernardino, State of California, being the premises and property so sold as aforesaid by said commissioner, and bounded and particularly described as follows, to-wit:

Being Lots Three Hundred and Eighty-one (381), Three Hundred and Eighty-two (382), Three Hundred and Eighty-three (383), Three Hundred and Eighty-four(384), Four Hundred and Fifteen (415), Four Hundred and Sixteen (416), Four Hundred

and Seventeen (417), and Four Hundred and Eighteen (418), of Ontario Colony Lands, according to the map thereof on file and of record in the office of the County Recorder of said County of San Bernardino; together with all water developed therein, and all water rights of whatsoever kind and nature thereunto appertaining; and also Blocks Fourteen (14), Twenty-nine (29) and Fifty-nine(59) of San Antonio Heights, according to the map of said San Antonio Heights on file and of record in the office of the County Recorder of said County of San Bernardino, and together with all water developed therein, and all water rights of whatsoever kind and nature whatsoever thereunto appertaining.

TO HAVE AND TO HOLD all and singular the premises and property above mentioned and described, and hereby conveyed, or intended so to be conveyed, together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, unto the said party of the second part, and to its successors and assigns forever.

IN WITNESS WHEREOF, the said Henry Ingram, as commissioner, the party of the first part, has hereunto set his hand and seal the day and year first above written.

Henry Ingram (SEAL)
Commissioner appointed by the
Superior Court of San Bernardino
County, State of California.

State of California,
SS.
County of San Bernardino.

On this 30th day of September, 1899, before me, S. F. Zombro, a Notary Public in and for the County of San Bernardino, State of California, residing therein duly commissioned and sworn, personally appeared Henry Ingram, Commissioner appointed by the Superior Court of the County of San Bernardino, State of California, known to me to be the same person whose name is subscribed to the within instrument, and he acknowledged to me that he, as such commissioner, executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the County of San Bernardino, State of California, the day and year in this certificate first above written.

(SEAL)

S. F. Zombro

Notary Public in and for said County and State.

U. S. Internal Revenue Stamps to the value of seventeen dollars hereto affixed and cancelled.

Recorded at request of San Antonio W. Co., Oct. 6 1899 at 25 min. past 4 P.M., in Book 277 of Deeds, Page 67, Records San Bernardino County, J. F. Johnson, Jr., County Recorder By H. E. Higbey, Deputy Recorder. Folios 15, $2.50 Pd.

Mr. Jolliffee: I offer in evidence a deed from the Ontario Land and Improvement Company to Ruth E. Franklin, dated October 26, 1894, recorded in Book 200 of Deeds at page 163, conveying the same property as in the last description.

A deed from J. S. Slater, J. T. Slauson, R. E. Widney and H. L. McNeil, O. F. Fitches, D. McFarland, Lyman Stewart and Charles Franklin as trustees to the Ontario ~~xxxx~~ Land Improvement Company, dated August 3, 1887, recorded in Book 64 of Deeds, page 5. /P

Also an agreement to convey by George Chaffey Jr. , William B. Chaffey, J. S. Slauson, John E. Slater and R. M. Widney as trustees to H . L. McNeil O. F. Fitcher, D. McFarland, Lyman Stewart and Charles F. Franklin as trustees, dated March 2, 1886, recorded in Book E page 471 of agreements, conveying the property first above described, and also other property. /P

Mr. Britt: All these papers here offered are subject to objection on the ground that it does not appear that the several grantors were the owners of property described.

Mr. Jolliffe: We expect to trace the title down to the Cucamonga Company.

Mr. Britt: This deed from the Commissioner purports to convey certain water rights on the lands described. We have no objection to the paper or to the entry of the paper in the same chain of title coming apparently from Stamm and Franklin and the Ontario Land and Improvement Company, other than that they do not show that the grantors or any of them had rights in water adverse to the plaintiffs in this case

which they had a right to convey. I make the statement and objection merely that it may not be supposed that by failing to object to the admission of papers that we consent xx, or agree that the grantors had title as against the plaintiffs in the case to convey any waterxor water rights . Is it understood, Mr. Jolliffe, that the papers thus offered may be received subject to the objection that the defendant offering the chain of title undertakes to show the existence of property in such water and water rights axx were assumed to be conveyed by the terms of the agreement?

Mr. Jolliffe: We expect to show some water rights in connection with these deeds. It is satisfactory that it shall go in that way.

The Court: I don't hear all you say, but I assume that you intend to connect these instruments in your chain of title.

Mr. McKinley: Yes; we will connect it.

The Court: The objection is overruled with the understanding that they are to connect the chain of title; otherwise they will be stricken out on motion.

Mr. Britt: I understand the stipulation sufficiently covers that.

Mr. Jolliffe: We offer deed from George Chaffey, Jr., and Wm. B. Chaffey to George Chaffey, Jr., Wm. B. Chaffey, John E. Plater, J. T. Slauson and R. M. Widney, dated July 16, 1883; recorded in Book 150 of Deeds at page 274, conveying the property first described in this chain of title, and other property.

Mr. Jolliffe: We offer an agreement executed by the Cucamonga Company to George Chaffey, Jr., and Am. B. Chaffey, agreeing to convey the eight lots and other property described in the first deed offered, September 18, 1882, recorded in Book E of Agreements at page 381 January 30, 1886.

A deed from the Cucamonga Company to A. L. Wicks, J. C. Lynch and L. T. Wright to the property described in the first deed offered in this chain of title, subject to the agreement last above offered, dated January 5, 1886, recorded January 18, 1886, in Book 44 of Deeds, page 159.

I offer a deed from A. L. Wicks, J. C. Lynch and L. T. Wright and M. M. Hodgkins to J. L. Slater, dated January 21, 1886, recorded January 30, 1886, in book 44 of Deeds, page 201, San Bernardino County Records.

A deed from the Ontario Land and Improvement Company to the San Antonio Water Company dated July 14, 1893, recorded August 4, 1893, in book 105 of Deeds, at page 122 .

Trust Deed from the Ontario Power Company to the Union Trust Companyn of San Francisco. It doesn't appear to be of record in this county, but I find a reference to it in Book 216 of Deeds, page 101, in which it appears to have been recorded in Book 1546 at page 185 of Trust Deeds of Los Angeles County. It is not recorded in this county so far as I can find

A Trust Deed from the San Antonio Water Company to J. M. Elliott, dated Nov. 1st, 1894, recorded November 5, 1894, in Book 80, mortgages, at page 121

Mr. McKinley: It covers all the property of the San Antonio Water Company whether owned at that time or since acquired.

Mr. Britt: It will be sufficient if the substance of the instrument is stated , its date, object, and parties.

MR GOODCELL:-

A deed referred to once before, December 22, 1887, from the Cucamonga Water Company-- From the Cucamonga Fruit Land Company to the Cucamonga Water Company, purporting to convey 456.69 inches of water in consideration of the latter distribution and apportionment of that water, to the parties who are mentioned in the deed as being entitled to receive it,-- that deed, or rather a copy of it, is set up in full as an exhibit to the answer of the San Antonio Water Company to the fourth amended complaint; and it will be sufficient if we all agree that that deed as set up as an exhibit in that answer be considered in evidence.

Mr. Haskell: Have you examined it to see if it is an exact copy?

Mr. Goodcell: It has the appearance of being an exact copy, but I haven't read it through. It is recorded in Book 69 of Deeds, page 314. I understand its execution has not been denied by plaintiffs, and being set up in haec verba in the answer, it is deemed admitted on the part of the plaintiffs. And I should like to have that admitted without having to incumber the record with a copy of it, and it

is already set out as an exhibit in the answer.

The Court: Is that agreeable all around?

Mr. Haskell: It is agreeable to me if somebody will verify the copy set up in the answer referred to.

Mr. Goodcell: Where an instrument is set up in full, its execution is deemed admitted unless denied under oath. There is no denial, so I suppose plaintiffs and intervenors and defendants all treat that as being in evidence, and I should like to have it considered in evidence on behalf of the Cucamonga Water Company also.

Mr. Britt: The plaintiffs have no objection.

Mr. Goodcell: There is another instrument; there is a contract between the Cucamonga Fruit Land Company and the Cucamonga Water Company, dated January 2, 1897, recorded in Book 255 of Deeds, page 221, made pursuant to the provisions in the deed, dated December 12, 1897, describing and defining the lands and sources from which the waters have been obtained, which lands there described are the lands delineated on some of the maps as the 90-acre tract and known in this case as the 90-acre tract. This contract defines that land as the land from which waters have been developed under the provisions of the prior deed of 1897. I offer that in evidence on behalf of the Cucamonga Water Company.

MR. GOODCELL: Also a deed from the Cucamonga Fruit Land Company to the Cucamonga Water Company of date February 12, 1902, recorded in Book 315 of Deeds, page 256, conveying to

the Cucamonga Water Company the 90-acre tract as described in the preceding contract of December 22, 1897. It conveys the 90-acre tract, and everybody knows what that is.

Mr. Britt: Plaintiffs have no objection.

Mr. Haskell: During Mr. Chapman's lifetime I had a general understanding with him in regard to a stipulation in regard to the title of George E. Havens for a certain portion of his lands. There has been some allusion made to it in the record and I would like a stipulation that George E. Havens, one of the intervenors, is and ever has been the owner of the real property described in his complaint in intervention,-- is now and has been continuously since '88 the owner of the real property described in the complaint in intervention,-- the land and water.

Mr. McKinley: I can't go quite that far; that is what this case is about.

Mr. Haskell: But it describes that he is the owner of two inches of water from the Cucamonga Springs and four inches in another-

Mr. McKinley: I will stipulate that he is the owner of the land but not the appurtenances; the tract of land described in the complaint and also that he is the owner of 6 inches of water to be taken from the Cucamonga Springs.

Mr. Haskell: That is all we desire at this time.

The Court: There was another matter suggested yesterday by Judge McKinley in regard to the death of one of your clients; have you investigated that?

Mr. Haskell: I will have to write to San Francisco in re-

gard to that: I will write to San Francisco this noon.

The Court: This last stipulation in regard to the rights of George D. Haven in the Cucamonga Springs, I am not fully advised just what the latest pleadings are in this case, but I assume under any theory of the case it will be necessary to determine the rights between the plaintiffs and intervenors and the defendants on the other hand; but in some cases the relative rights of these defendants. That is, the priorities.

Mr. Haskell: As betweenthe Intervenors and the Cucamonga Water Company, Mr. Leonard and Mr. Goodcell and I have had under consideration some stipulation which will leave the decision of that question as it now stands in the Smith case as it has been decided in the lower court and a motion is pending on appeal which is not yet decided. If we arrive at the stipulation we expect to arrive at a stipulation which will leave that as between the Intervenors and the Cucamonga Water Company to be as determined in the Smith case.

Mr. Britt: Plaintiffs understand that the claim to the 6 inches of water from the Cucamonga Springs made by the intervenor mentioned, is part of the one-half owned by the two Cucamonga companies named as plaintiffs.

Mr. Haskell: That is correct, and I think the pleadings show that , and I think I have introduced deeds enough to show that already.

Mr. Britt: One thing further, as a sort of a parenthesis, There was on behalf of the Cucamonga Water Company a demurrer interposed to the fourth amended complaint here which never

was formally disposed of. There was an answer filed, however, recently, and I suppose that was intended to waive the demurrer. Still it might be well to have the demurrer either withdrawn or acted upon.

Mr. Goodcell: If there was a demurrer, it was simply to avoid a default.

The Court: As a matter of law, the subsequent filing of the answer would waive the demurrer in any event.

Mr. Goodcell: If there is any question about it, the Cucamonga Water Company now waives the demurrer and it may be deemed withdrawn.

Mr. Britt: I believe the question that the complaint does not state facts sufficient to constitute a ~~xxx~~ cause of action is not waived.

The Court: That is not waived whether you put it ~~xxxx~~ x in demurrer or not.

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W. T. LEAKE.

W. T. LEAKE, being recalled for resumption of his cross examination, testified as follows:

CROSS EXAMINATION.

Mr. Britt: Q Mr. Leake, referring to the question of lands and trees and kinds of growth irrigated at Ontario, you mentioned citrus fruits and some other kinds: are there any vineyards in Ontario which are irrigated with water from the San Antonio Water Company or which have been in previous years irrigated?

A I recall only one vineyard at the present time.

Q Whose is that?

A I don't know the name of the owner; it is a vineyard off to the southeast part of the colony.

Q You know only one?

A That is the only vineyard that I recall at present; there may be others.

Q That has been irrigated with water supplied by the San Antonio Water Company?

A If irrigated at all I presume it was irrigated by those waters; but I don't know a thing about it; I have seen the vineyard but I don't remember ever seeing it irrigated, and the only thing I know about it simply hearsay.

Q You spoke of a lease of water to the Cucamonga Water Company by the San Antonio Water Company or the Ontario Power COmpany in 1902.

A That was by the Ontario Power Company; leased by the Ontario Power Company.

Q Is that a written lease?

A Yes, sir.

Q It has not been introduced here in evidence, has it? Do yo u know?

A I don't remember.

Q Have you that lease in court at the present time,

A There is a copy of it in the minute book of the Ontario Power Company; that is the only copy here I think.

Q Mr. Shepherd will be here again to-day?

Mr. McKinley: Yes.

Q We will obtain that best from him. What arrangement have you had of the San Antonio Water Company with the Cucamonga Water Company concerning the care of that Baby Tunnel since the San Antonio Water Company began to receive the water from it for the purpose of irrigation in the year 1899, I think it was,-- April or May or June?

A I think that under the original contracts the San Antonio Water Company was to pay such proportion of the repairs on the tunnel as their water bore to the amount of water flowing through the tunnel.

Q The original contract of what time?

A I think 1899. That is not a contract with the Cucamonga Water Company, but--

Q That was with the Cucamonga Fruit Land Company?

A Yes; I think so.

Q I was asking you about the arrangements, and when I speak of arrangements, you might understand that is, a practical course of dealing between your company and the Cucamonga Company for the care and maintenance of the tunnel. Have you had one or two rangeros looking after the tunnel?

A Yes. The practice up to recently of the two companies had not been entirely satisfactory. I remember we had some improvement that we made at the mouth of the tunnel and arranged a box for the proper measurement of water etc., but the San Antonio Water Company bore the entire expense of that.

Q When was that improvement made?

A I think it was 1904 and possibly 1905; I don't remember the date; I can't tell without reference to the bills. The Cucamonga Water Company never paid their proportion of that improvement.

Q The San Antonio Water Company demanded payment of a portion of that expense?

A They sent a bill to the Cucamonga Water Company.

Q Was it paid?

A No.

Q Before that time had there been any division of expenses between the two companies in the care of the tunnel?

A The care of the tunnel above the 90-acre tract, it was understood was not part of the Cucamonga Water Company's line; but on the 90-acre tract it was simply expected that the Cucamonga Water Company would pay their proportion of the expenses. I know very little about it and I don't know whether any improvement was made during those years, either jointly or ~~xxxxxxxx~~ separately.

Q Was there any arrangement between the two companies about the division of the water? There was, was there not, at the mouth of the tunnel?

A No definite arrangement; it was simply understood that

such waters as flowed from the tract of land immediately above the 90-acre tract would come to Ontario and the balance to Cucamonga.

Q You mean to the Cucamonga Water Company?

A Yes, sir.

Q That was the understanding, you say. What time was it made?

A I don't know that there was anything more than a tacit understanding.

Q What means were adopted in order to carry out that understanding?

A The two manjaros were supposed to regulate the water, but they didn't always agree.

Q How did they regulate it? You as manager of one of them had some knowledge of how that was regulated?

A After a new box was installed-- the new box at the end of the tunnel-- after the new box and measuring device was instituted there the weirs were so set that an equitable division of the water could be made. As I think it has been made generally.

A That is one of the subjects I am trying to reach.

Q And I am trying to give the information the best I can.

Q At what time was that new box set?

A I can't tell without reference to the bills.

Q Don't you know approximately?

A I can't give the exact year.

Q Was it before or after the San Antonio Water Company took over the Ontario Power Company?

A Afterwards; possibly a year afterwards or possibly longer.

Q Were there some devices constructed at the south of the Lady Tunnel in order to make a division?

A Yes, sir.

Q What were they?

A Two weirs.

Q Was it arranged that the waters flowing over the weirs in one instance would go to the distributing system of the San Antonio Water Company and in the other instance to the distributing system of the Cucamonga Water Company?

A And there was also placed on the weir an automatic measuring device.

Q At the time of the completion of the weir?

A Very shortly after.

Q Was there some additional tunneling done there in order to bring water from the main tunnel to the two weirs respectively?

A The tunnel was extended a short distance; yes.

Q 50 feet or so?

A Well, not so much as that; possibly the extension was made as much as that in order to conduct the water from the measuring weir into the Cucamonga Water Company's system.

Q Who paid the expense of those devices? The two companies?

A The Cucamonga Water Company didn't pay any of the expense of that improvement.

Q Didn't pay any of the expense of the weir for measuring the water into its own system?

A No, sir.

Q The San Antonio Water Company installed both weirs , did it, at its own expense?

A I presume that the Ontario Power Company paid their share of it; that is my recollection or presumption, rather.

Q Did the Cucamonga Water Company pay none of it?

A None of it. We sent them a bill but for some reason they rejected it and I never understood why.

Q After that time was there any cleaning of the tunnel or removal of obstructions or anything done by way of preservation of it before putting in the bulkhead?

A Before putting in the bulkhead there was some work done on the tunnel immediately north of the 90-acre tract. I think about 70 feet was lined with cement pipe.

Q What company did that work?

A I think the Ontario Power Company.

Q The Cucamonga Water Company was not interested in that?

A Not in that part of the tunnel; I understood that they did some work in connection of their wells with the tunnel, but I am not familiar with that.

Q At what time?

A Some time previous to putting in the bulkhead.

Q How ling previous? A year or two or three or four, more or less?

A I can't tell; it was not work that I had supervision of.

Q You spoke of two zanjeros being employed that arranged the division of the water: Whom zanjeros were they?

A One zanjero was the employe of the Ontario Water Company and I presume the other zanjero was the employe of the Cucamonga Water Company.

Q What was the business of those zanjeros or, rather, what did they do in and about the tunnel or the discharge of water

from it?

A The tunnel was a piped-tunnel-- ~~piped~~ piped with cement pipe, and I fancy there was very little necessity of repairs; I don't recall any special repairs outside of what I have just stated.

Q (Question read.)

A I presume that they looked after the weirs that came out of the mouth of the tunnel and saw that it was pure and unpolluted, and that any trash that might have accumulated would be properly removed, and I presume they also looked into the matter of the joint division box to see that it was correct. I don't know of anything further that they looked after.

Q One was a zanjero employed by the San Antonio Water Company and the other was a zanjero employed by the Cucamonga Water Company?

A I presume theother was employed. I saw him there.

Q What did you see him doing?

A Looking around. I had a talk with him once or twice at that point.

Q Did the weirs receive attention from time to time to keep them in order?

A I presume they did; I was there myself occasionally and looked over that carefully myself once in a while.

Q Were those some of the times when you saw the zanjero of the Cucamonga Water Company on the ground?

A Yes, sir.

Q At what time were those two zanjeros first employed to your knowledge, or first engaged in business ~~fax xxx~~ of the

nature that you have described in answer to the last few questions?

A I am not familiar with the date of the employment of the zanjero of the Cucamonga Water Company.

Q I merely want to know whether the two zanjeros were doing this sort of work which you have mentioned (perhaps it was not very arduous, but still it was work of that character) from the years 1901 and '2 and thence forward.

A The zanjero of the San Antonio Water Company was looking after those matters continuously.

Q When did the Cucamonga Water Company begin to have a zanjero looking after those matters?

A I can't tell that; I don't know.

Q Was it as much as five or six years ago or four or five years ago?

A I presume so. I take it for granted that they had a zanjero continuously during those two years, but personally I paid little attention or no attention to their affairs.

Q Since the bulkhead was installed in 1907 in January what has been the arrangement between the San Antonio Water Company and the Cucamonga Water Company touching the times when the bulkhead should be shut down and when it should be open?

A We completed a contract with the Cucamonga Water Company this last fall designating how the bulkhead should be managed.

Q Previous to the contract of the fall of 1908 how was it managed?

A Largely by mutual agreement between the two zanjeros as to how much water they needed and when they needed it.

Q That is some sort of an answer to the question; but what was the agreement between the two zanjeros? What plan and practice did they adopt to carry it out? Take the first year, 1907-- the first year after the bulkhead was put in.

A I don't know that I can give any clearer answer than that. That is practically the extent of my knowledge in the matter.

Q Did the San Antonio Water Company shut down the bulkhead or cause its zanjero to shut down the bulkhead whenever it chose, without reference to the Cucamonga Water Company?

A As I understand, that bulkhead was shut down or opened by mutual agreement between the two zanjeros, and that they worked harmoniously in the matter.

Q Just whenever the two zanjeros got ready they shut down the bulkheads, without any instructions from you or any other management of the San Antonio Water Company?

A My instructions to the zanjero of the San Antonio Water Company was to confer with the zanjero of the Cucamonga Water Company and arrange for a harmonious handling of that matter, and I think my instructions were quite general to him in regard to the opening and closing of the bulkhead; that whenever water was needed to open it, provided it was agreeable to the Cucamonga Water Company. My instructions were that we wanted to work harmoniously with them, and I think we succeeded.

Q Were your instructions carried out?

A As far as I know.

Q Do you know whether they were?

A I don't know that they were not; I heard no complaint in the matter

Q. There were times when your company wanted the water to flow, were there not?

A. Undoubtedly.

Q. And there were times when you didn't want them to flow?

A. That is true.

Q. How could the zanjero know when the company wanted the water (the San Antonio Water Company) or when it didn't?

A. It was his business to know; that was part of his terms of employment, to look after those things.

Q. How could he find out? From your office?

A. He found out in his own field of operations; it was his business to be absolutely continuously in touch with the users of water, both for domestic and irrigating water, and I presume he did know.

Q. What were your instructions to him? When the water rose in the shaft or the bulkhead in or behind the bulkhead as ~~xxxxxx the xxxxxxx~~ so that it ran over the surface or was about to run over? Did he have any?

A. I think in a general way; I don't think I gave any specific instructions in the matter. My instructions were to confer with the zanjero of the Cucamonga Water Company and arrange for the proper conservatio~~xxxxxx~~ of the water. I don't recall anything specific in my instructions.

Q. And you committed it to the zanjero just to go ahead and ~~xxxxx the xxxxx~~ conserve the water? You left it to the the zanjero?

A. Not fully. The zanjero reported to me from time to time and he was supposed to be able to handle that conservation of water without any very minute inctrustions

Q. Did any conflict arise at any time between the Zanjero -- between the San Antonio Water Company and the Cucamonga Water Company about the opening of the bulkhead,-- about when the water should flow and when it should not?

A. I don't remember of any controversy especially. I think their desires in the matter were communicated to us, possibly through the zanjeros, but I am not sure of that. I know we conferred with them on the subject of the conservation of the water and thereesult was a contract which seemed to be mutually agreeable to both parties.

Q. Prior to the summer of 1899 your company, the San Antonio Water Company, had not received more than 30 inches of water from that tunnel, had it?

A. I can't recall it; Mr. Stowell was quite liberal in his arrangement with us in regard to the water at that time, but I can't recall the exact conditions over and above the 30 inches. I don't remember.

Q. You don't remember whether the San Antonio Water Company received above 30 inches previous to the irrigation season of 1899-- day before April of that year?

A. I cannot recall it.

Q. Let me refresh your recollection. You were a witness in the trial of a case in this court entitled McPherson et al. vs. Cucamonga Fruit Land Company et al.:

A. Yes, sir.

Q. I will call your attention to the testimony given by you in that case in January or February, 1900, found on page 1470 of the transcript:

"Q. Prior to the 8th day of April, 1899, had the San An-

tonio Water Company used any of the waters of the Stowell wells?

"A Yes, sir.

"Q About how much in amount?

"A About 30 inches I think.

"Q For how long a time?

"A Since the summer of the preceding year; sometime in the summer of '88 or rather '98."

Do you remember giving testimony to that effect?

A I remember I was on the stand but I can't recollect; I presume that I did but I have no recollection of it at the present time.

Mr. McKinley: Of course, we will admit that it is his testimony. He simply don't remember it himself.

Q The testimony was substantially correct, was it/?

A I think it was.

Q The water which was there referred to was the water then received through the Eadie Tunnel, was it not, by the San Antonio Water Company, and the reference made to the Stowell wells means Stowell wells which discharged into the tunnel? Is that correct?

A Yes, sir.

Q Mr. Lech, before making the arrangement with Stowell and the Cucamonga Fruit Land Company about April 1899 for an enlarged flow of water from the tunnel, amounting in all to something like 130 inches, you had a report of the engineer concerning the water conditions in that neighborhood, did you not?

A I think we did.

Mr. F. C. Finkle?

A. I don't know.

Q. That report was the subject of discussion by the board of directors?

A. Undoubtedly.

Q. And previous to entering into a contract with the Cucamonga Fruit Land Company and Stowell, which contract was placed in evidence?

A. Yes, sir.

Q. If you will have an examination made among the papers of the San Antonio Water Company and allow us to see that report we will be obliged.

A. I will do so.

Mr. McKinley: I am informed that it is in the McPherson transcript.

Q. Now before your company put down or sunk the 16th street wells, so called, did you not have an examination made by the engineer and a report of the probability of obtaining water in that locality, and upon other conditions which would naturally bear upon the project?

A. I don't remember such a report.

Q. Yesterday I thinkthere was asked you a question about the time of obtaining that new engine to pump the 16th Stred well or well no. 3, which in 1899 and 1900 was called "The 16th Street well." You thought you could probably find those vouchers and accounts of the company and find the time when that was purchased. Have you made an examination on the subject?

A. I am notfamiliar with the accounts myself and I asked

Mr. Shepherd to look into the matter for me. We found that the engine had been purchased in '96-- a new engine.

Q Are you able to state the condition of the water that was in that 16th Street well at the time the San Antonio Water Company began to pump it in pursuance of the permission which was given by Frankish & Stamm in the year '98?

A Yes; it was in the spring of '98.

Q Did you make any examination of the well at that time-- put down a plummet or anything of that sort to see how deep it was?

A I don't recollect.

Q Or have somebody else do it?

A I presume we had the well thoroughly exploited, but I can't recall the incidents connected therewith.

Q Do you remember how far the level of the water was from the top of the ground in that year?

A No, I do not.

Q Is there anyone connected with your company now that does know or has the means of information?

A I don't know that there is. I would like to ascertain that myself.

Mr. Britt: I have been giving some attention to these accounts which Mr. Shepherd or yourself produced here for our instruction, if not enjoyment, and on the first sheet I see here is type written and is headed "16th Street well and development. Payments shown on ledger previous to drilling well."

Now that sheet begins April 1898, sundry items, $6.87; May 1898, $172.17. there being no other designation, but a refer-

ence to the ledger. Are you acquainted with the contents of that ledger? Is the book here.?

A I am not sure whetherit is here to-day or not.

Q If those items are called to your attention appearing in the ledger, could you at all (your memory being thus refreshed) give us any information as to the purposes for which the several expenditures were made?

A I can't tell without seeing the item, and I am not very familiar with the office accounts.

Q This sheet, payments shown on ledger previous to drilling well, commences with April, 1898, I think, and comes down to May, 1900. When I spoke to Mr. Shepherd about items in the books, he knows only what is in the books. Mr. Locke might possibly know what the items were used for.

Mr. McKinley; We are willing to arrange it so that you can cross examine either one as to that testimony. We appreciate that their knowledge is not always interchangeable.

Mr. Britt: The Court may think we are unduly finicky about these matters, and I might make a sort of an explanation. There is a plea of limitations or limitations in this case. This action was begun March 1st, 1904. The testimony on behalf of the defendants San Antonio Water Company is directed to showing, with what success I do not undertake now to determine, that there was a use of this water from well no. 3 as early as 1898, and it is the nature of the use and its continuity and whether it was of the same water which they evidently pumped with considerable zeal and success in 1900 and on, that we are addressing those questions to. The testimony, I venture to think, although perhaps that

is a matter for future argument, is at present vague and indistinct, and we consider that the matter of the 30 inches which they state generally was pumped at that time is of sufficient importance to justify a somewhat minute inquiry as to times and dates.

Mr. McKinley: We haven't objected. We appreciate the importance on the part of plaintiffs to show these matters if they can.

Mr. Britt: We are going to show it as fully as the facts allow us to -- if we can get the facts.

The CourtThere is nothing to prevent you going ahead; the Court can't object even if it wanted to.

Mr. Britt: The Court has been very patient, even at times when the questions seemed to be trivial.

Q This reference on this sheet, sundry items, no. 1426, I infer from that that it is page 1426. Were you directing the work which was done in the 16th Street well in 1898 and 1899?

A I was presidnnt of the company at that time, but I drew no salary and I didn't spend very much time-- only a small fraction of my time-- looking after their business. I don't think I could be considered as directing the work at thatntime.

Q The first voucher produced here is one of R. Manley. Do you know R. Manly?

A Yes; I am acquainted with him.

Q And the charge is 16-2/3 days work on 16th Street shaft That is April 18,, 1898; form for funnels, cement funnels, box on North Ontario pipe line etc. 345.02. in pencil below "16th Street shaft 2-1/3 days. In the summary at the bottom,

16th Street well $6.87; pipe lines, $38.95; and the sum of the two items or amounts, $45.82. Do you not infer from that account that at the time this work was done that the 16th Street well was a mere shaft and had not been sunk to any considerable depth?

A There was a drilled well in the shaft at that time.

Q What was this work done on theshaft for?

A I presume to sink theshaft down so that we would get an ample supply of water in pumping.

Q You say you presume: Do you remember anything about it?

A I remember that we sunk that well or sunk a shaft down that summer. Undoubtedly this is part of the work from time to time. It was not done consecutively. The shaft was sunk in order that continuous pumping might be done.

Q While the shaft was being sunk isn't it a fact that there was no pumping done?

A I don't think so; that is not our method of handling wells. We sink and pump at the same time.

Q This is the first charge or first entry of any expense incurred on that 16th Street well, and there doesn't seem to be any pumping appliance but only some work on the shaft. If there had been pumping going on at that time would there not have been brought here in the books of the company and accounts and vouchers some note of expense on that account?

A I don't know.

Q This bundle of accounts and vouchers has been produced here from the office of your company either by yourself or by Mr. Shepherd. Can you take this and see when there is any expense shown for the purpose of pumping? You have no

recollection as to the time when pumping was begun?

A No definite recollection.

Q Just examine this. The accounts seem to run in chronological order, commencing at the back of the bundle and proceeding towards the front.

Mr. McKinley: These are produced in answer to your request for expense of work on the wells; if you want the bills of expenses for pumping we will produce those.

Mr. Britt: Is there something different?

Mr. McKinley: So Mr. Shepherd informs me.

Mr. Britt: I would like to s e them. All right . We will defer therest of the examination on this.

Q Do you know what was the depth of that 16th Street well x at the time that those expenses that you just now refer to were incurred in the Spring of 1898?

A No; I never have measured it; I only know from general report at that time

Q You stated a little while ago that you don't know the distance at which water stood below the surface of the ground.

A No.

Mr. Haskell: Q In 1899 you sunk the 16th street well no. 3 to a greater depth? That is, you put down a pipe in it, did you not? You drove a pipe to a greater depth?

A No, sir.

Q Hasn't there been additional sinking of pipe in that well since 1899?

A Yes, sir; in the spring of 1900 we sunk it to a greater dppth.

Q What greater depth?

A If you will allow me to look at my memorandum on the well I will give it to you. Well no. 3, I presume you refer to?

Q Yes.

A Early in the spring of 1900 we sunk that well to a depth of-- we re-bored it to a depth of 640 feet or thereabouts.

Q How deep was the well before it was re-bored?

A It was generally understood to be about three or four hundred feet; I don't know personally.

Q In this re-boring process did you get any more water?

A Yes; we did.

Q How much more?

A In pumping since that time it has at times pumped 100 inches of water.

Q And before you re-bored it you got only about 30?

A Yes; 30 inches.

Q And you always had a centrifugal pump on it, had you?

A Not always.

Q What did you have on it?

A Early in the spring of 1900 we put in a centrifugal pump and pumped through that season. Previous to that time we had other forms of pumps.

Q Was it a force pump that you had before that?

A Yes, sir; a cylinder pump.

Q That cylinder pump had always to be below the level of the water, did it not? That is, it couldn't operate by suction?

A The pumping machinery in those days was rather

imperfect and they were fearfully and wonderfully made.

Q Don't you know they are operating the same kind of pumps now that they were in even '97? Don't you know that the most successful pump in operation to-day is the very ones that were in operation in '97 and '8?

A I don't know that. I think there have been very material improvements, and in many instances they are greatly changed. Those pumps would be only fit for the scrap heap at the present time.

Q What kind of a pump do you use now? Byron Jackson?

A Yes.

Q Don't you know that the Byron Jackson was in common use in this valley throughout San Bernardino County as early as 1897?

A That is not plunger pump; the Byron Jackson pump is a centrifugal.

Q That is what you have got now?

A Yes, sir; and it is a good pump.

Q You are referring to the particular pump you have in your own well?

A There is several different varieties.

Q When you set the centrifugal pump you set it practically on the water plane?

A Yes, sir.

Q And operate it by suction?

A Yes, sir.

Q And you got a greater amount of water than you were ever able to get before?

A Yes.

Q And since you bored that No. 2 well you have sunk all those wells to a greater depth to something like five or six hundred feet more or less?

A We bored them; yes, sir.

Q And they have all produced a large amount of water, haven't they? Approximately 100 inches?

A Well, that would be a maximum.

Q They are all operated in the same way-- by suction pumps-- are they not?

A Yes.

Q And you have found the greatest flow of water from those deep wells and not on thesurface?

A Yes.

Q And when you operate these pumps with the suction placed at the water plane,-- with a suction valve on it-- extending down-how deep down into the wells do you extend your suction pipe?

A Oh, about 25 feet or something like that.

Q And when you do that and have the power you are able to draw from each of those wells early in the season approximately 100 inches? Isn't that true?

A Oh yes; in the early season the pumps are submerged usually.

Q Did you attempt to operate any other of those 16th street wells with a short pipe in it extending down two or three hundred feet only below the surface of the ground?

A The Rubio well was operated under those conditions.

Q How far down did that pipe extend?

A Just at the present time the well is dismantled and caved in

ain; but at the time that I held the title I presume the well was three or four hundred feet deep.

Q And that produced only about 25 or 30 inches of water ?

A About that.

Q And did you afterwards change the bore and depth of the pipe?

A I don't think we did.

Q It has always remained the same and produced about the same quantity of water, did it not?

A That is about right.

Q And the character of the ground through which you passed was similar to that of the other wells in boring?

A Neither myself or the company that I represent bored the Rubio well; I don't know a thing about it.

Q Do you remember at what depth the pump-- how far it was placed below the surface in the no. 3 well in '98 or '99?

A I don't remember.

Q Can you tell approximately?

A No.

Q Before you purchased the ground where well no. 14 is at the head of the Mady Tunnel you made an examination of that well to see how much flowed from it, didn't you?

A Yes; we were there with Mr. Stowell and saw it pumping out a very large stream of water.

Q And Mr. Stowell was operating that pump at the surface of the ground?

A You mean the pump was at the surface?

Q Yes; placed nearly at the surface of the ground.

A Well, it was pretty low down; I wouldn't call it the surface of the ground; it was down in the well.

Q How deep down?

A I can't say; it was quite a little distance down.

Q He had a Byron Jackson, didn't he?

A I think it was a Byron Jackson pump; he had two motors on there, if I remember right, using about 70 horsepower electric. Of course, they were pumping an enormous stream of water.

Q And if I remember right it was about 200 inches of water?

A Well, I think it was a very low estimate.

Q How deep down was the pump at that time as near as you can tell?

A My remembrance of the surface of the water is very indefinite.

Q Was it down 10 feet?

A Oh yes; considerable more than that.

Q 15?

A Yes; I am confident it was.

Q 20?

A I think it was more than 20.

Q 25?

A It is difficult for me to tell; I think it was considerable below 25 feet.

Q 30?

A Yes; I think it was 30.

Q Now, that was when the pump was in operation, was it

not?

A I am under the impression that he started the pump up at that time to show us the amount of water that could be pumped from the well. I don't think it was in continuous operation.

Q But when the pump was in operation the water stood down 30 feet below the surface?

A I think more than 30 feet.

Q How much?

A It is pretty difficult to state how much; I think somewhere between 35 and 50 feet.

Q That was early in 1902, was it not?

A Yes, sir; the spring of 1902.

Q Now subsequently there was a gallery connected up to this well with the Lady Tunnel, was there not?

A Yes, sir.

Q And that gallery was about 50 feet below the surface of the ground, was it not?

A I think it was even deeper than that.

Q It was about as low down as you could pump water out of that well, wasn't it?

A Pretty close to it; that is right.

Q About 50 feet? You could tell that you thought the water was between 35 and 50 feet?

A You are a little misleading on that statement.

Q I am asking you. I am not misleading.

A If I remember right the pump was only operated at the time I was there when I said the water was possibly 40 feet below the surface for a short time--

Q That was when Stowell was--

A That is when Stowell showed us what kind of a well it was; when the active pumping of that well began for lowering the water to connect that gallery, the water was necessarily sunk below that point under continuous pumping, and the well was pumped for all it was worth for some-20 days in order to get the water down to as low a grade as possible for the construction of that first gallery.

Q Did it go down to 55 feet below the surface?

A My impression is that the gallery was constructed from somewhere about 60 or 65 feet below the surface, but I am not sure about that.

Q That was some time in the fall of 1902?

A No, sir; it wasn't in the fall; it was in the spring.

Q Then subsequently there was another gallery constructed?

A Yes.

Q And the pump was operated on this well for the same purpose of lowering the water so that the connection could be made?

A Hold on. You are making a statement there that I cannot concede. After this first gallery was constructed the pump was taken out and removed and the whole thing was dismantled and the water was taken through this first gallery by a siphon and the siphon drew the water down quite a considerable distance.

Q After that there was another gallery constructed, wasn't there?

A Yes, sir.

Q When was that?

Mr. Surr: That has been testified to time and again.

A. That was put in in the late summer of 1902.

Q. That was cut down about 20 feet lower than the first gallery?

A. I think about that or probably more.

Q. That was operated by siphon?

A. Yes; that was operated by siphon.

Mr. Britt: Q. When you first saw that well no. 14, now at the head of the Lady Tunnel, at what elevation did the water stand below the surface in the well?

A. My impression is that it stood between 40 and 50 feet; somewhere about that.

Q. That was in the spring of 1902?

A. Yes.

Q. And there was no connection then made between the well and the tunnel?

A. No connection at that time

Q. And the well had then not been pumped?

A. Well, at that time there was a pump in the well and these two motors were connected. I don't know to what extent Mr. Stowell had experimented with it before that time.

Re-Direct Examination.

Mr. McKinley: Q. Referring to these bills shown you--these bills throughout show the payment of expenses for the work on the 16th Street wells and some of that, I understood, was for pumping?

A. Yes.

Mr. McKinley: We will offer these bills in evidence as one exhibit.

EXHIBIT W.

I suppose you will waive reading?

Mr. Britt: Yes.

Q. Here is a bill, F. Robinson, 6-2/3 days work, 16th Street well at $1.75, $18.35. Was that pumping or general work?

A. I don't know; I can't tell.

Q. Here is a bill of November 1st, 1898, George Barlow, October 1st, 2nd and 3rd: What is that for?

A. That was pumping.

Q. That is number 1787. The bill described it one day running 16th ~~xxxx~~ Street engine. The bill of Fulkerson, voucher 1784, the articles there were used in connection with pumping, were they? It is dated November 12, 1898.

A. There is a good portion of it applies to pump and pumping and fittings.

Here the Court takes a recess until 2 o'clock p. m.

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Afternoon Session 2 p.m.

W. T. LEEKE

W. T. Leeke, recalled by defendants, testified as follows:

Mr McKinley, Q There are several bills in this lot which we introduced, which described the work as on the pump: This has a lead pencil mark of that sort: Do you know what that work was?

A I don't know the character of that.

Q You don't know whether that was pumping or not? It may have been pumping or may not?

A That is true; yes, sir.

Q Now, will you look at this bunch of bills, and see whether they were in connection with the 16th street well, just running through all of them?

A This first bill is a bill for steel pipe that was used on those wells.

Q That is bill, voucher number 1534, dated July 18th, '98?

A Yes, sir.

Q And the next number, 1569 relates to the same matter?

A Yes, part of this refers to putting in the pipe line from 16th street.

Q That is August 15; 1898?

A Yes, sir.

Q And the next one is number 1572, August '98?

A This is on the extension of the pipe line out 16th street.

Q This being number 1571, August, 1898?

A This is on the pipe line extension.

Q Being 1573. And the next 1574?

A All of these refer to the pipe line; this is the bill for

pumping on 16th street well.

Q This is dated September 20, 1898, and reads 3 days and 3 nights, run on engine, $12, account of James Burch, and is attached with another bill to voucher number 1564?

A This is a bill for pumping 16th street well.

Q This bill is number 1705, North Ontario, October 1, 1898, San Antonio Water Company, debtor to George Barlow, and under the column '96 follows the dates, inclusive from the 16th to the 30th of September, and opposite each of them, one day running engine at 16th street well, $2.50 . This is the same Barlow, whose bill was in for three days in October?

A The same man.

Mr McKinley: We offer those in evidence attached together marked as one exhibit.

Admitted in evidence, reading waived, marked

Defendants' Exhibit ~~W~~ "X"

being certain bills against San Antonio Water Company.

Cross Examination.

Mr Britt, Q Could you find those vouchers to which Judge McKinley called your attention this morning, in that lot Exhibit W. one bill of Robinson number 1835, and the other bill of Barlow number 1787, and another still of Fulkerson, ~~xxxx~~ 1784?

A I have before me the bill of F. Robinson, number 1835

Q Let me take that first: This bill shows, as I understand it, and let us see if we understand it in the same sense, that December 19, 1898, the bill of F. Robinson against the San Antonio Water Company for 6 2/3 days work

done on the 16th street well, at $1.75 a day , amounting to $11.66, was paid by the San Antonio Water Company: Is that what it means?

A That is correct; yes, sir.

Q It does not contain a receipt, or is there a receipt attached somewhere?

A No; the checks are supposed to act as receipts.

Q And the entry here at the foot of the account, check, 1835, means that a check of the company was issued to one Robinson, for that amount of money?

A Yes, that is right.

Q Now, do you remember what was the nature of the work done by this F. Robinson?

A I don't remember.

Q He did the work shortly before the date of this account, did he, December 19, 1898?

A I presume so.

Q You have no means of knowing whether the work was done in pumping the well, or in sinking a shaft, or in some other excavation about the well, or in constructing a pumphouse?

A I don't know.

Q Now, the next is number 1784, I think, the bill of Barlow; find that if you please. No, Fulkerson's bill is 1784.

A Is it Fulkerson's bill you want this time?

Q Yes, Fulkerson's bill. This is dated November 12, 1898, and seems to consist of numerous items: What part of it relates to the well number 3?

A The first item, $12; and part of the third item $4.80 ;

the items are not numbered; there are quite a numberof items here; shall I give the amounts.

Q Well, read those which relate to the well number 3.

A Or the pipe line connected therewith? Or simply the well itself?

Q The well itself?

A One keg, $2.50; keg of nails I think; one keg, $2.55; nails I presume; 20 and 10; I presume those are the size of the nails. One oil can 25 cents; 3 picks, $1.95; 3 handles $.90; 1 12 pound sledge, $1.44; 1 handle .20; 1 - I don't know the item, .65; one screen 1.96; 1 cleft, $.24; 1 keg nails 2.50; Anotheritem I can't make out - it is only five cents; 2 pair hinges. 20 cents. quite a lot of items here that it is difficult to place; they are not designated.

Q Well, pass those over.

A Two items of twenty cents each, on pumping plant; a great many of those items are not designated so it is difficult to get at them.

Q Well, let those go if they can't be identified.

A Here are some totals on this proposition: 16th street well, $28.14; pumping expense, $21.62.

Q What is the pumping expense?

A Well, I don't know.

Q Did it [illegible] there in the bill which are pumping expense? Are they the nails and hinges?

A The material used in sinking the well, undoubtedly.

Q Now, turn to the Barlow Bill, number 1787.

A October 1, 1898.

Q That is the Barlow bill is it?

A Yes, sir.

Q Just let me look at it a moment. Did you know this man Barlow?

A Yes.

Q Where is he now?

A I think he is in Ontario or about there.

Q Is the bill in his hand writing or is that made out by some employee of the San Antonio Water Company?

A I fancy it is his handwriting; but I don't know; I can't say.

Q Now, that bill purports to be for labor by Barlow, October 1, 2, and 3, 1898 does it not?

A Yes, sir.

Q At the rate of $2.50 per day?

A Correct.

Q On the first, the charge is for running 16th street engine, the second is the same, and the third it is half a day at 16th street, one dollar: Those statements are correct?

A I think they are.

Q Do you know what sort of an engine that was that he was running?

A Gasoline.

Q Do you know what he was running it for?

A Pumping water.

Q Do you know where the water was discharged? Was it taken away through a pipe line at that time?

A Yes, sir.

Q xx Or was it pumped merely to exercise the well?

A. That was purped for water.

Q. Now, how is it that it begins on October 1, and stops on the second, or third, at any rate? Was Mr Barlow engaged for only those three days?

A. I don't remember.

Q. Was any one engaged before him for that purpose, or next after him.

A. It is so long ago I can't recall it.

Q Where is the account or voucher or entry which shows that somebody else than Barlow was doing the same work, next before and next after, or either before or after his employment there? Have you been able to find it?

A. Personally I have not looked for it; I have had parties looking for it; they have not been produced so far as I know.

Q. And this fulleman's bill was altogether for materials to be used in sinking the well, wasn't it?

A. That is correct; yes, sir.

Q. Or some other purpose connected with the well; Those kegs of nails, for instance: he couldn't sink a well with those very well, could he?

A. Well, placing in the lagging and planks, for retaining the walls as you sink the well.

Q. Well, that would be digging the shaft.

A. Well, that is what they were doing.

Q. They were sinking a shaft?

A. Yes, sir.

Q. So as to get a pump down into the bowels of the earth for the purpose of pumping, was that it?

A. Well, I think the pump went down into the pipe; it is

my impression that the pump was a plunger pump.

Q What was the shaft being sunk for and lagged?

A We may have had an idea of putting a different type of pump in the succeeding year; it is quite possible we did have that in view; I don't know.

Q Well, the sinking of the shaft was a part of the operation of pumping, was it?

A No; it was not a part of the pumping operation itself.

Q Is it usual in the case of wells here in this part of the country to sink a dug shaft for a considerable distance from the surface of the ground, in order to lower and establish a pump, and get the pump nearer the water?

A It is; in our practice it is; it is also in our practice we sometimes sink shafts, because there is some little defect in the piping, and we sink down to get a better section of piping for our plunger pump.

Q Do you that what is the depth of the shaft at the present well number 5?

A At the present time?

Q Yes?

A I don't know the depth of that shaft at the present time.

Q Did you know what it was in 1898, 1899 or 1900?

A Not with any definiteness.

Q Directing your attention to Exhibit X introduced in evidence a little while ago, do you find in that group of bills, parcel of bills, anything relating to pumping, except the statement or bill amounting to 185, and purporting to be an account of the San Antonio Water Company with George Lawlow?

A I will look them over; this bill of Barlow's seems to be all right.

Q I am asking if there are any others besides that?

A Here is a bill September 20th, xxxxxxxxxx Three days and nights running engine, $12.00

Q Engine where?

A The bill itself does not state. There is nothing to indicate where that work was performed.

Q You find then only the bill of Barlow, running engine at 16th street, amounting to $25, the one to which I called your attention?

A That is all; the other one is in doubt; I don't know where the other engine was run.

Q And the rest of the bills included in Exhibit A are bills relating to material and supplies for the construction of a pipe line are they not?

A Correct.

Q Now, this bill of Barlow covers the time from September 16 to September 30, 1898 does it not, at the rate of $2.50 per day, running engine at 16th street?

A Yes.

Q Omitting one day I notice, the 19th.

A I hadn't noticed that; let's see. Yes, it is omitted.

Q That may have been a Sunday.

A It is possible.

Q Now, aside from what was paid to Barlow as represented by these two accounts, and which extend from the 16th of September to the 3rd of October, 1898, you have found, or there has been found for you, no other statement or account

of expense incurred, or paid by the San Antonio Water Company for pumping that well in the year 1898? Is that correct?

A Nothing further definite; there are some indefinite bills there that I don't fully account for.

Q Mr Stevens suggests that the term xxdefinite as you use it in that answer needs a definition: what do you mean by the term definite? You find no other definite bills? You mean bills which you can identify as referring to pumping that well?

A I refer to the fact that there are some bills as to which I have a doubt in my mind as to whether they apply to the pumping or otherwise.

Q Well, which are they?

A Well, that Robinson bill, particularly; I am not sure about that.

Q Well, that is one not included in the Exhibit X.

A And the Birch bill, $12; I am not sure about that; there is no doubt as to the pumping, but I am not able to locate the exact place of pumping.

Q Well, that Robinson bill of December, 1898, was 6 2/3 days work on 16thst. well at $1.75 a day; were you accustomed to get engineers as low as $1.75 a day? Didn't they cost you $2.50 a day?

A Well, to answer the first question, not usually; it is possible that he might have been detailed to pump the well; I don't know.

Q You don't recollect any engineer of the name of Robinson in your employ at that time do you?

A No, sir; I don't recollect him at all.

Q Isn't it a good deal more likely that he was doing some unskilled labor about the well at $1.75 a day, than that he was an engineer employed to run an engine there?

A I can't fix in my mind what he was doing.

Q Those are the two bills which as you say are indistinct in your mind?

A Yes, sir.

Q I notice here among the papers which were handed to us for inspection, a bill dated December 10, 1898, apparently in favor of one Thomas Howes, for work at 10th street wells but it is carpenter work, $2.50; it is a loose sheet.

Mr McKinley: It belongs to Exhibit X I don't think it was attached to it at the time it went in; there is no objection to having it attached?

Mr Britt: Yes, it may go in with the other documents, which go to make up Exhibit X.

Q Now, have you made any search or have you directed any search to be made for bills for pumping, expense relating to the actual operation of the pumps on the 10th street well number 3, in the year 1899? A list of bills has been placed in my hands for examination, which I have been able to give only a casual examination, but perhaps you are better acquainted with them, Mr Leake, and I hand them to you with the request that you know which of those bills relate to the actual business of pumping water at the 10th street well number 3. If Mr Shepherd can do this more conveniently than you can, I have not any objection. They seem to be arranged so that the earliest in point of time are at

the back of the group of bills.

A These bills refer to 1899.

Q Yes, the year following - that is what I understood; they seem to cover the next year, following the year when the bills in Exhibit 2 and Exhibit 3 were paid, is the reason why I place them before you in this manner.

A I find no bills that state definitely that the labor was for pumping; there are quite a number of labor bills.

Mr Britt: I thought I saw some there; that was my impression.

A There are a good many labor bills in there, but it does not state for what purpose the labor was done except on 16th street well, or at 16th street well.

Q Well, let's see: Here is one June 15, 1899, San Antonio Water Company to J. M. Packard, 21 1/3 days labor, $37.33; 2 1/2 days labor at $2.50, $6.25: And the item of $6.25 in the summary at the bottom seems to be charged to the 16th street well: You observed that did you?

A Yes, sir.

Q Do you remember this man J. M. Packard?

A I remember him.

Q In what capacity was he employed?

A I don't remember what he was doing that summer.

Q Do you remember what he ever did for the San Antonio Water Company?

A I don't remember.

Q The San Antonio Water Company had some sort of a plant at Claremont did it not?

A Yes, sir.

Q What was it - a well or a tunnel?

A They had a well there.

Q In 1899?

A Yes, they were completing up a well that year there.

Q I see of this bill of Packard $33.83 is charged to the Claremont W development: I suppose that means Claremont water development?

A Yes.

Q It was a well was it?

A Yes.

Q Have you no recollection what Packard was employed for atthat Claremont development?

A No.

Q Whether he was a well-digger or borer, or carpenter?

A I don't remember.

Q Well, there seem to be other accounts here which are charged to the 16th street well.

A Quite a number of them.

Q Are there none of those that you can identify as representing expenditures made for pumping the 16th street well?

A Not directly; labor performed there, but in what capacity I don't know.

Q Did you have, or has it been the custom of your company to employ engineers to operate the somewhat numerous pumping plants owned by the company, or was that business entrusted to any sort of a common laborer, who never saw an engine?

A They were entrusted to parties who knew how to run gasoline engines; I don't know as you would term them engineers.

Q Well, they were people who understood handling that species of machinery?

A Yes; it does not require a great degree of engineering ability to run a gasoline engine.

Q Perhaps not; but it requires some training, some skill, does it not?

A To some degree, yes.

Q And it is a species of skilled labor?

A Yes, in low degree.

Q Well, you are requested now to produce here any other vouchers, books or accounts, which in the year 1899, represent or preserve the evidence of expenditures, for expense, made by the San Antonio Water Company in that year, for the pumping of the well number 3; and that is all for the present.

Mr Britt: I think if there is no objection this last parcel of bills which was last in the hands of Mr. Leake, and concerning which he was interrogated, relating to some of the items at any rate, and some of the bills at any rate, to the 16th street well in 1899, may together be marked as Plaintiffs' Exhibit for identification; we will not offer them at present but may desire to offer them later.

Mr McKinley: If you prefer I will put them in now.

Mr Britt: I haven't any objection to that.

Mr McKinley: Then I will offer them as Defendants' Exhibit Y.

Admitted in evidence, reading waived, marked

DEFENDANTS' EXHIBIT Y

being sundry bills against San Antonio Water Company.

Mr McKinley: We ask leave to amend the answer of the San Antonio Water Company, and also the answer of the San Antonio Water Company, not changing the issues, but alleging the facts more closely in touch with the testimony introduced here. (Reads amendments as proposed.*)

Mr Britt: There is no objection to that.

The Court: Leave will be granted to file the amendment.

Mr Conner: I desire to amend the answer of the Harmony Water Company by substituting a new paragraph 3 in lieu of the present paragraph 3.

The Court: I suggest that you present the amendment when it is prepared in writing.

Mr Conner: Very well.

-o-

B. C. SHEPHERD.

B. C. Shepherd, previously sworn, being recalled by defendants, testified as follows:

Direct Examination.

Mr McKinley, Q Have you found an entry in the minutes, which refreshes your recollection in regard to the amount of water used from the 16th street well in the year 1899?

A Yes, sir.

Q This was prepared under your direction, this writing?

A Yes, sir.

Mr Britt: Let us see the refreshing paper.

Mr McKinley, Q After refreshing your recollection, will you state what amount of water was received from the 16th street well number 3 in 1899?

A Thirty inches.

Mr Whitley: Is you have to prove the answer to the
Lubrick order counsel, are also the answer if he was the
local video camera, are recording the issues, and allegis
the Fonda was strongly in favor also the Hollywood Entre-
mond here. (Cause questions a question.)

Mr Smith: There is no objection to that.

The Court: Have you the witness in this courtroom.

Mr Dorsey: I wanted to hand to counsel of the Lubrick
order counsel, by consideration a new document I in lieu
of the recent counsel.

The Court: I assume that you provide the counsel that
it is present in evidence.

Mr Dorsey: Yes-well.

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A. S. Gordon.

B. O. Thomas, previously sworn, being recalled by
defendants, testified as follows:

Direct Examination.

Mr Whitley, I, have you found at every in the course,
which reference for rescindation is regard to the amount
of value used from the Hoh Grove and in the year 1977
a Yes, sir.

Q. This was proved under your direction, was it?
A. Yes, sir.

Mr Smith: Let us see the reference paper.

Mr Whitley, a After referring your recollection, will
you state and answer to the question (Mr. Hoh Gro
shows sell answer in line).

A. Sixty-three.

Q by Mr Britt: That was what time in 1899?

A November.

Mr McKinley, Q Well, during the season of 1899 what amount was received?

A That report was made in November, 1899 by myself.

Q What is your recollection as to the amount of water received during 1899?

A 50 inches from the 16th street well.

Q During the irrigation season?

A I can't say how soon we started to pump it, but I know that we did pump that well during that season, and that is about the amount of water that we received.

Q Mr Shepherd, state whether you were present at a conversation, between yourself and Mr Stowell, and Mr Finkle, about March, 1899, at the time negotiations were being had with Mr Stowell, with reference to the purchase of certain wells, in which conversation Mr Stowell stated, that 100 feet was sufficient for the protection of a well there, and called the attention of Mr Finkle to two wells located within less than 100 feet of one another, and stated that neither affected the other?

Mr Britt: We object to the question as leading and incompetent, and as not a proper method of impeachment; and it is not impeachment at all; on the further ground that it calls for hearsay testimony as regards the plaintiffs in the case; no proper foundation has been laid for it, nor has it been shown that the witness Stowell disclaimed making the statements referred to in the question.

The Court: The objection is overruled.

Mr Britt: Exception.

Mr Stevens: And there is no authority shown on the part of Stowell, which would bind any of the plaintiffs in this action.

A I remember a conversation of that kind taking place. That was the substance of it.

Q I will ask you whether in the same conversation to which I have referred the following occurred: If in reply to an inquiry by you or Mr Finkle or both of you, as to whether the wells on the north were or were not affected, or whether they did ordid not affect the wells on the tract of land for which you were negotiating, Mr Stowell answered to the inquiry that they did not have any effect one on the other?

Mr Britt: Objected to as leading; objected to as hearsay as regards the plaintiffs, and that the testimony is not proper impeaching testimony of anything said by thewitness Stowell, and that the proper foundation for such impeachment has not been laid, and that it is irrelevant and immaterial.

The Court: Overruled.

Mr Britt: Exception.

A I am unable to recall that particular conversation; the former conversation about one well not having sympathy with the other appealed to me very much, and for that reason I remember that distinctly, but I cannot recollect that other conversation.

Mr Britt: We ask that what the witness said about the other conversation bestricken out as not responsive to the question.

Mr McKinley: We are willing to have it stricken out.

Q Will you state whether you have prepared a tabulated statement of the moneys expended by the San Antonio Water Company, on the property north of 16th street, and at the 16th street wells?

A I have.

Q Will you produce it?

A (Witness produces document.)

Mr McKinley: We offer it in evidence.

Q That is a correct statement prepared from the books of the Company?

A Yes, sir.

Q And these moneys were expended for the purposes set out there and as appears from the books?

A Yes, sir.

Mr McKinley: We offer the statement and ask that it be copied into the record.

Said document is admitted in evidence, reading thereof waived, and the same is here extended in the record as follows:

SAN ANTONIO WATER COMPANY -EXTENDED PROPERTY NORTH OF 16TH ST.

INCLUDING PIPE LINES MAKING TRANSFER.

| | | |
|---|---|---|
| | 750 ft.- 12" Pipe line from s.w.cor. lot 485 to w. side of lot 486--per foot 50c | 375.00 |
| 1901 March | 2479 ft.- 14 to 18" Pipe line from s side Lot 486 to s.w.cor. Lot 463----85c | 1880.07 |

| | | |
|---|---|---|
| 1900 | | |
| May | 9133 ft. - 20" Pipe line from s.w. cor. | |
| Aug. '02 | | |
| -------- | Lot 463 to center of lot 418----1.08 | 9863.64 |
| 1899 Sept. | 2042 ft.- 18" Pipe Line from n.e cor. | |
| | Lot 418 to Haskell well--------94½c | 1929.69 |
| 1899 Sept. | 3774 ft.- 16" Pipe Line from n.w cor. | |
| | Lot 419 to n.e.cor.Lot 418-----82c | 3094.68 |
| | 2500 ft.- ~~10"xkipuxkine~~ 10" steel | |
| | Pipe line from 16th st.wells south | |
| | to main pipe line----------75c | 1877.00 |
| | 1500 ft.- 12" Cement Pipe Lines | |
| | from wells to main pipe lines, | |
| | (deep trenches) ----------75c | 1125.00 |
| | Expended on 16th St. Well April, | |
| | 1898 to November, 1899- per ledger | |
| | a/c - folio 113 | 1400.26 |
| | Expended on Frankish and Stamm develop- | |
| | ment, Nov. 1899 to April, 1903, - | |
| | ledger folio 57 | 18431.89 |
| | Expended on Frankish & Stamm Dev- | |
| | elopment Apr. 1903 to Jan. 1905 - | |
| | ledger folio 39 | 2140.93 |
| | 5 complete pumping plants installed | |
| | on the 16th St. lands ( F & S ) - | |
| | $2426.00 | 12130.00 |
| 1899 August | Paid Rubio for right of way for | |
| | pipe lines to Haskell well, Record | |
| | book 9, -folio 245 | 500.00 |

| | | |
|---|---|---|
| 1902 May to Oct. '06 | Cost of water rights on Rubio lands | |
| --------- | per ledger a/c -folio 208 | 14834.57 |
| 1899 Feb. | Cost of Frankish & Stamm lands purchased on foreclosure of Mortgage being Ontario Colony Lands, - Lots 381-382-383-384-415-416-417-418 (Record Book 3 - Folio 173) | 15132.54 |
| 1899 July | Lots 4 & 5 Block 20 of Cucamonga Homestead Ass'n, lands purchased of H.H. Heller, as per Record Book 3, Folio 236 | 3500.00 |
| 1899 July | Lot 6, block 16 of Cucamonga Homestead Ass'n Lands purchased of H.L. Haskell, et al., as per record Book 3 & folio 234 | 6000.00 |
| | Expended on Haskell & Heller Development from July 1899 to April, 1903 as shown on ledger a/c -folio 129 | 7008.76 |
| | Expended on Haskell & Heller Development from April 1903 to Nov. 1905, as per ledger a/c - fo. 45 | 154.00 |
| 1900 | A complete pumping plant installed on the Haskell-Heller Property - $4435.00 each | 4557.00 |
| | | $105,830.53 |

Q Have you prepared a statement of the money expended by the San Antonio Water Company on the property west of the Cucamonga Hill?

A Yes, sir.

Q Covering thereby the Eadie tunnel and the Stowell well?

A Yes, sir; and the pipe lines.

Q Is that a correct statement of the amounts expended as shown by your books?

A It is; yes, sir.

Mr McKinley: We offer that in evidence and ask that the reporter copy it into the record.

Said document is admitted in evidence, reading thereof waived, and the same is here extended into the record as follows:

SAN ANTONIO WATER COMPANY

Expended on Property West of Cucamonga Red Hill.

| | | | |
|---|---|---|---|
| 1899 | | | |
| Sept. | 1484 ft. Pipe line 12" - from S. W. Cor. Lot 589 to east side lot 588--per foot, 50c | 742.00 | A.S.Bent acc't. |
| " | 2443 ft. Pipe Line 14" - from east side lot 588 to N.W.Cor lot 584 - 62 1/2 c | 1526.87 | " |
| " | 5912 ft Pipe Line 16" - from N.W.Cor Lot 584, to N.W.Cor. Lot 550 ---- 66 3/4 c | 4946.18 | " |
| " | 1400 ft. Pipe Line 18" - from N.W.Cor, Lot 550 to N.E.Cor Lot 548 ---- 83½ c | 1169.00 | " |

| | | | |
|---|---|---|---|
| 1908 Aug. | 4320 ft. Pipe Line 24" - from s.w. Cor. Lot 554 to N.E. Cor Lot 548------ $1.03 | 4449.60 | " |
| 1908 Aug. | 1650 ft. Pipe Line from S.W. Cor. Lot 554 to Euclid Ave & 10th St ---------- 50c | 825.00 | |
| " | 1014 ft. Pipe Line from Euclid Ave. & 10th St. to Division Box N of 9th St. - - 45 c | 456.30 | |
| 1899 Aug. | Cucamonga Fruit Land Co. on account of 100 inches water, (bonds) | 50000.00 | |
| " | L. W. Stowell for 30 inches water - (Bonds) | 30000.00 | |
| 1901 Mar. | Cucamonga Fruit Land Co. for water Cash | 12500.00 | |
| June | Cucamonga Fruit Land Co. for water Cash | 12500.00 | |
| " | Cucamonga Fruit Land Co. for water Notes | 25000.00 | |
| 1903 | Expended on Cucamonga Tunnel in 1903, as per ledger a/c folio 64 | 371.25 | |
| | Expended on Stowell Tunnel -Aug, 1903 to Nov. 1905 as per Ledger a/c - folio 63 | 1069.42 | |
| 1904 | Expended on Stowell Well in 1904 as per ledger a/c - folio 65 | 431.78 | |
| | | 145987.40 | |

Q Have you prepared a statement of the moneys expended by the Ontario Power Company?

A Yes, sir.

Q On the property west of the Cucamonga Red Hill?

A Yes, sir.

Q And that is a correct statement and the moneys were expended for the purposes and at the dates set forth there?

A Yes, sir.

Mr McKinley: We offer this in evidence, and ask that it be copied into the record by the reporter.

Said Document is admitted, in evidence, and is here extended into the record as follows, reading thereof being waived:

ONTARIO POWER COMPANY

Expended on Property west of Cucamonga Red Hill.

| | | |
|---|---|---|
| 1902. | Expended on Cucamonga Pipe line from Eady Tunnel to N.E. Cor. Lot 548 as per O.P Co Ledger a/c folio 50 | $3104.37 |
| | Expended on Stowell Well from June, 1902 to Nov.1905, O.P. Co. Ledger folio 120 | $4925.00 |
| | Expended on Stowell Tunnel from Jan. 1903 to Nov.1907 - O.P.Co. Ledger - folio 119 | $2321.25 |
| | Expended on Stowell Pumping Plant from Aug. 1903 to Nov. 1907,- O.P. Co Ledger, folio 118 | $1438.00 |
| 1906 | Expended on Stowell Tunnel Bulkhead as per O.P. Co. Ledger a/c- folio 230 | $1237.53 |
| 1902 | Cucamonga Lands West of Cucamonga Red Hill - commencing at S.W. Cor of Sec. 4, -North 600 ft. E. 498 ft. North 2960 ft. - East 1019 ft.- North 1861 ft. - West 2839 ft. - South 81.83 Chains - East 20.04 chains 262 acres Also Lots 1-2-3-4 in Sec. 8 and lot 4 in Sec.9 --- 100 Acres | $107508.80 |
| | | $120534.95. |

Cross Examination.

Mr Britt, Q You produced a paper here, from which you say you refreshed your memory about the quantity of water pumped in November, 1899 from the 16th street well: This is a printed document that you have exhibited here: After you look that paper over do you really have any more recollection about the matter than you did before, or do you simply assume that the statement there made is correct because it appears in this printed paper?

A I assume that it is correct, because I know that I made out that report myself, and had it printed myself, and I would not have made that statementunless it was a fact at the time.

Q You never measured that water did you?

A I don't know that I measured it like an engineer.

Q Did you ever measure it atall?

A I don't know; I may have measured it.

Q You have no recollection of having measured it?

A I have no recollection of measuring it except with my eye; I can measure very accurately a flow of water with my eye; being so used to seeing water run, I can get at the thing very close.

Q How many times have you ever measured water with your eye?

A Oh, probably hundreds of times.

Q How manytimes have you ever verified your measurement?

A Often.

Q By your own measurements?

A Yes, sir.

Q You know how to measure water do you?

A I know how to measure water, yes, with a rule, running over a weir, and take the table and figure it out to the fraction of an inch.

Q Did you ever do that with reference to the water from the 16th street well?

A I can't remember that I did it in reference to the water in the 16th street well; but I remember doing it continually while I was with the San Antonio Water Company.

Q You don't remember of seeing the 16th street well pumped in 1899 do you?

A I do; yes, sir.

Q Well, tell us, from recollection - -

A In 1899 I have seen the water coming out of there, and I have seen the gasoline engine running, and I have seen the pumps going, down there. And I have seen the water coming out of the pipe lines.

Q Who was there with you on the occasion that you saw it.

A Oh, probably Mr Leeke and Mr Manly.

Q I am not asking about the probability. I am asking you if you recollect.

A I have no recollection as to the individuals with me; I can't remember that far back; but I know that I was constantly back and forth at those places with different parties.

Q You have no recollection of the time when?

A I can't give any date; it is too far to remember a particular date.

Q You prepared this is a sort of a prospectus issued to

the stockholders?

A No, sir; no prospectus, but a statement of facts to the stockholders so that they could know what was going on.

Q Read here what you say has refreshed your memory so vividly , that portion of the printed pamphlet.

A Headed, Frankish and Stamm Development. This development consists of about 90 acres of water bearing lands north of 16th street, and one mile east of Lucile Avenue; also three blocks of San Antonio Heights land, and a tunnel thereon situated north of 22nd street; on the 90 acre tract is erected a well from which we are now pumping 30 inches of water; it is confidently expected that by sinking other wells a large amount of water can be obtained; the total cost of this development is $22,606.51.

Q What development is that you say has cost $22,000 and upwards?

A The Frankish and Stamm development.

Q What is that Frankish and Stamm development?

A The 90 acre tract above 16th street that was purchased at a mortgage sale by the San Antonio Water Company.

Q Do you mean the land and all the property you got from Frankish and Stamm?

A I mean only the property that was north of 16th street, and not the - This $22,606.50 was the total expenditure on that 90 acre tract and the three blocks in San Antnio Heights, and tunnel thereon, situated north of 22nd Street a small tract of land up near the mountains, with a tunnel.

Q How far away from this well number 3?

A Two or three miles.

Q Towards the Cucamonga Canyon?

A Yes, sir.

Q Do you mean the Frankish and Stamm tunnel?

A Yes, sir.

Q That is a thousand feet long?

A I don't know how long it is.

Q Well, it is the tunnel which Mr Trask testified to here was it, or with which he had something to do with superintending?

A Well, it was known as the Frankish and Stamm tunnel, near the mouth of the Cucamonga Canyon.

Q And that is included in this Frankish and Stamm development?

A In this statement here it is included.

Q Now, in this statement let us see how much water your company then had, from this statement: Just look it over please: You first mention the San Antonio tunnel do you not?

A Yes, sir.

Q And you state there that it produced about 50 inches of water, at the lowest measurement?

A Yes, sir.

Q You next come to this Frankish and Stamm development, the quotation which you read a few moments ago, and you say that furnished and was then producing 30 inches of water? That makes 80 inches, doesn't it?

A Yes, sir.

Q The next mention is the Bodenhamer development is it not?

A Yes, sir.

Q How much do you say is obtained from the Rodenhamer Development-? 12 inches by gravity and 30 inches pumped don't you?

A Yes, sir.

Q That makes 42 inches more?

A Yes, sir.

Q Or 122 inches: That is right isn't it.

A I have not added it up; I suppose it is right.

Q Now, Pomona Canyon property, how much did you have there?

A The statement there states that the Pomona Canyon property consists of 1080 acres of San Antonio Canyon lands, and certain surplus water rights contingent on the amount of water flowing in the creek; this property was purchased two years ago at a cost of $19,000; this property gives this company control of the sources of our canyon water supply, and all surface water flowing, after delivering to the Loop and Reserve tract 312 inches.

Q How much was that, after delivering that much?

A I don't know.

Q Then you come to the 22nd street well.

A The statement in regard to the 22nd street well states that there has been expended on this well for repairs and sinking during the past year the sum of $1037.06; its capacity at present is about 10 inches of water, but it is not being operated, as all the machinery we have at present is being used to much better advantage at other developments.

Q Then the Claremont water development - what do you say about that or do you give the amount?

A Yes, sir.

Q How much?

A It states that upon these three lots of property -

Q That is the Claremont property.

A The Claremont property - There have been six wells sunk; from three of the wells about 80 inches of water is being now pumped; from the other three wells we confidently expect an increase of 75 inches, making a total of 175 inches from this source when all the wells are being pumped; the total cost of all the equipment, property, and water - rights, including the cost of developments to date, is $32,907.95.

Q The next is the Haskell Keller Development: You may state how much there is from that source?

A The reference to that property states that four shafts have been sunk to water on this property, from one of which 20 inches of water is being pumped.

Q The next is the Bell Canyon ranch; there is no water from that?

A No water.

Q Next is Cucamonga Water rights.

A With reference to the Cucamonga water rights it states that this property purchased during the past year consists of 130 California miners' inches of water, flowing from artesian wells and a tunnel, situated at Cucamonga, about a mile east of Euclid Avenue, between 11th and 16th streets, and is water flowing naturally by gravity into the pipe system of this company; it is also a preferred right up to 130 inches on all water that may flow from or be developed

from about 135 acres of water bearing lands, situated as above described. Of this 130 inches, 80 inches has been officially delivered September 1, and paid for at the agreed price of one thousand dollars per inch, making a total cost to date of $80.000; there are now 130 inches from this source flowing into the pipes of this company.

Q Now, is there anything more?

A This item here about the expense which states -

Q Well, I was asking you about the water.

A Nothing more about any flow of water.

Q Nothing said about the flow of San Antonio Creek anywhere here?

A No, sir.

Mr McKinley: That was about San Antonio Creek,- that which you read about what was left after taking out the 312 inches.

A It mentions San Antonio Creek, but it doesn't mention the amount flowing from San Antonio Creek.

Q Was your information at that time as accurate about the Bodenhamer development as it was about the 16th street well?

A Yes, sir; it was.

Q And was it as accurate about the Claremont development as it was about the 16th street well?

A Yes, sir; that statement was made up very carefully by myself, and I know it was correct at that time.

Q That was in november, 1899?

A Yes, sir.

Q The statement showed the net worth of the company to be

something over $600.000 at that time?

A $614,106.57.

Q Above its liabilities?

A Yes, sir.

Q That was also correct was it?

A Yes, sir; according to the books of accounts.

Q Did you make up that sheet which accompanied a bunch of these bills of the San Antonio Water Company purporting to show the expenditures of that company on account of the 16th street well, prior to the drilling of the well; I mentioned it here this morning; you were kind enough to give me some references to the ledger on a typewritten sheet: Was that made up by you or under your direction?

A That was made up by myself.

Q Do you know what has become of it?

Mr McKinley: That is on one of the exhibits.

Q I refer to the last sheet on Plaintiffs - - On Defendant's Exhibit 2 filed today: You say that was made up by yourself?

A That was made up by myself.

Q And was made up by references to the books of the San Antonio Water Company, and its vouchers and receipts and other documents, was it?

A Yes, sir.

Q And is correct is it?

A I believe it is correct; There were other expenditures made on the 16th street well previous to that time that are not charged up to the 16th street well, but are charged up to pumping expense.

Q Those are in 1896?

A Those are in 1896.

Q There were none in 1897?

A There were none in 1897.

Q But in 1898 you commenced to keep an account of the 16th street wells did you?

A Yes, sir.

Q And your ledger, which you kindly gave me a sight of, contains under a separate head, 16th street well, and it is there debited with the expenditures made?

A Yes, sir.

Q And this sheet here contains references to all the expenses in the years 1898 and 1899 and 1900, up to and inclusive of the month of May, for that well, does it?

A Yes, sir; up to May, 1900; there is one item in there of $21206.25, which does not refer particularly to the 16th street well, but to the cost of the land that was taken from Frankish and Stamm, or the balance that was due the company from their account, on that foreclosure proceedings.

Q That item, I suppose, $21,000 covers all of the Frankish and Stamm developments, the tunnel and everything else, does it?

A Yes, sir.

Q Now, in the next place, there are numerous numbers on this sheet in pencil, following the names of the months in 1898 and 1899: I suppose that those numbers refer to the vouchers or accounts of the San Antonio Water Company, where the items are more fully set forth?

A That is correct.

Do these papers, which are annexed to that sheet, and together with it filed as Exhibit W, include the various vouchers and accounts representing the expenses in the year 1898? The card annexed to it from which one gathers that inference says 16th street well, 1898.

A Those are the vouchers that I picked out, showing the expenditures on the 16th street well in 1898.

Q And I now call your attention to Plaintiffs' Exhibit Y, which has a card attached to it marked 16th street well, 1899: Are the various vouchers included in that exhibit the papers which are referred to in the pencil numbers on the sheet which forms the last page of Exhibit W?

A No, sir; the pencil figures on this last sheet on Exhibit W refer only to the vouchers that are attached to that paper.

Q But they all seem to be in 1898?

A I guess you are correct; they come on down here to 1899, and the same thing occurs, so that the pencil numbers and amounts also refer to this bunch of vouchers that was marked Exhibit Y.

Q Now, look for a moment, if you please at Exhibit X, which consists of several accounts, and state whether they are some of the vouchers referred to in that last sheet by pencil numbers,- the last sheet attached to Exhibit W? Did you furnish to Judge McKinley those vouchers which are annexed together as Exhibit X?

A Yes, sir.

There is one account of James Bowse dated December 16, 1898, for the sum of $3.75, which is charged to the 16th

street well on Exhibit X; and I do not find that voucher on this last sheet of Exhibit W.

Q Aside from that the others appear there do they?.

A Aside from that all of these other vouchers are vouchers that have been charged up to the pipe lines account, the pumping expense account, the pumping plant account, and another account for pumping expense.

Q Well, I ask you if they all appear or were referred to in the pencil numbersoff that last sheet, Exhibit W or not, other than that Dowse account?

A There is not any of these appears on that sheet .

Q The papers annexed together as Exhibit X?

A The papers annexed together as Exhibit X - they are not on that sheet; so that none of the evidence, Exhibit X seems to appear on the last sheet of Exhibit W.

Q I think that you intended to get here the entry in the minutes showing the contract between the Cucamonga Water Company and the San Antonio Water Company, for water in 1902, the water rented by the latter company to the former.

Mr McKinley: That is the Ontario Power Company.

Q Can you refer to that contract in the minutes or the instrument itself?

A That contract for the 65 inches of water?

Q If that is what the amount was?

A 65 inches of water that went to the Cucamonga Water Company.

Q There was some water leased one year.

A One year. I think I can refer to the minutes and show how that was done.

Q Produce them if you please. In the minutes of the Ontario Power Company, at page 80, dated April 24, 1902 - what do you find in that regard?

A I find that one of the clauses of the contract between the different parties states as follows:

Q Haven't you a copy of the contract in those minutes somewheres?

A This is the copy of the contract; this is the minute, and the copy of the contract is copied in these minutes.

Q What is the date of it?

A April 24, 1902.

Q And is this paragraph to which you refer the only one which describes the leasing or contract by one company to the other? I don't care about the whole contract coming in here, if part of it covers that particular question.

A I think this clause covers that transaction fully.

Q Very well; read it.

A It is further agreed and understood that the said land last mentioned and the said Ontario Power Company are subject to a contract made with the Cucamonga Water Company, to furnish said Cucamonga water Company with 65 inches of water, measured under a four inch pressure, during the season of 1902, and that the said Cucamonga Water Company is to pay therefor the sum of $2500; and it is hereby agreed that in the event of the assignment of the stock of the said Ontario Power Company to the party of the first part as hereinbefore provided, party of the first part will see that said contract is carried out, and party of the second part shall be entitled to receive said sum of $2500 for the due

performance thereof.

Q There is a misunderstanding between you and me: This is a part of the contract between the Ontario Power Company and the San Antonio Water Company, isn't it?

A Yes, sir.

Q Well, now, what I had reference to was the contract between the Ontario Power Company and the Cucamonga Water Company, or the San Antonio Water Company and the Cucamonga Water Company, under which this quantity of water, 60 inches or so, was delivered to the Cucamonga Water Company in the year 1902, and I understood from you that that contract appeared here in some of these minutes.

A That is the only contract that I know anything about; that the delivery of that 65 inches of water was assumed by the Ontario Power Company, after the San Antonio Water Company purchased the stock of the Ontario Power Company, the contract having been made with the Cucamonga Water Company before the San Antonio Water Company acquired the stock.

Q This paper from which you have just now read is the long contract between the San Antonio Water Company and the Ontario Power Company that was placed in evidence some weeks ago?

A Yes, sir.

Q Well, that is not what I wanted at all: Was there any contract with the Cucamonga Water Company for the delivery to that company during the year 1902, of 60 inches of water or thereabout?

A I cannot call to mind any contract, except this 65

inches, which is here stated, and it was delivered to them by the Ontario Power Company.

Q Now, these sheets which were introduced here a little while ago, the first one being entitled "San Antonio Water Company - expended on property north of 16th street" - are going to require some investigation; where are the accounts from which these general statements were made up?

A Made up from the ledgers of the different companies.

Q Are they here in court?

A I think they are.

Q The first item bears no date, 750 feet of 12 inch pipe line, from southwest corner of lot 485 to the west side of lotx 486, per foot, 50 cents: Now, we want to examine into these various items and see which of them have any just pertinence to this case: If you will provide those books and those vouchers and give us that information, Mr Shepherd, as conveniently and as quickly as possible we will be obliged.

A I will have to move the office down here if you want all the vouchers.

Q There are some of those items there, which according to our comprehension have nothing to do with this case; and you have large sums charged to the Frankish and Stamm development: What have we to do with the Frankish and Stamm development? and the Frankish and Stamm tunnel?

A There is not anything in that statement that refers to the Frankish and Stamm tunnel, not on any one of the statements - the Frankish and Stamm tunnel - not a cent is charged on one of the statements that applies to the

Frankish and Stamm tunnel, or the property on which the Frankish and Stamm tunnel is situated. All of that here is most of Frankish and Stamm lands, purchased on foreclosure of mortgage, being certain lots, for $15,132.54; and it gives the numbers of the lots right there.

Q May be I am mistaken about its mentioning the Frankish and Stamm tunnel.

A I think I can explain every item on there to your satisfaction, without moving the office up here; it was very carefully made out by me, and I know all about it, and I believe that I can satisfy you that it is all correct.

Q Mr Stevens points out, "Expended on Frankish and Stamm Development November, 1899 to April, 1902, $13,[illegible]31 -

A I can take the ledgers and point those all out to you; and if it is necessary to bring down thousands of vouchers we can produce them; the ledger itself will show the actual facts; the money was spent and I know it.

Q You probably spent money, too, on the San Antonio tunnel, but that is not a proper matter for consideration here in this controversy.

A There is not anything on those bills - I think I can satisfy you as to that also -there is not anything there out what refers to the matters in controversy here.

Q Well, we will go right at it then; take the first item which bears no date, for $375, for pipe line from the southwest corner of lot 485 to the west side of lot 486: Where is the pipe line and at what time was it constructed?

A I can't give you date in which that particular short piece of line was constructed.

Q Can you find the entry in the books?

A Neither can I find the entry in the books, because in making up that short piece of pipe line, I know that it was laid by the Water Company, and not by contract which I could refer to; and by pointing it out on a map, I can show you that it is a part of the extension of the pipe lines from the 16th street wells to the west side of the Colony. When the San Antonio Water Company laid pipe lines it was charged to pipe lines, and there wasn't anything to show what particular pipe line; so that in order to get that exact cost I had to take the cost of laying a pipe line of that size.

Q You have no record of it in your books?

A No record that I can absolutely trace to the particular voucher or the particular time in which it was laid; I can simply point it out on a map, that it was laid, and it is there.

Q Well, suppose you do that: Where is the map?

A If there is no map here showing the lots of the Ontario Colony I would have to have one down from the office; it would be a short piece of pipe line about 13th street, but to be very accurate, as you wish about this matter - -

Q We are opposed to having twelve or fifteen or twenty thousand dollar items put in here in this way, that do not appear to have any connection with the present controversy.

A That particular item is only $375.

Q Well, it does not show any date or price of ancestry or hope of posterity; we think we ought to have the book entries

Mr Britt: We now ask that the first item of alleged expense

on property north of 16th street, reading thus: "750 ft, 12 inch pipe line, from S. W. Corner lot 485 to N. side of lot 486, per foot 50cents, $375" - be stricken out as having no proper place in the evidence, and not shown to relate to any part of the property in the present controversy.

Mr McKinley: We object to its being stricken out; the witness has stated that it does relate to this property.

Mr McKinley: I would like m to ask a question in regard to that.

The Court: Very well.

Mr McKinley, Q. About how long was that pipe line put in?

A My recollection would be that it was probably five years ago, and the item is on the books of the company, but I am unable to locate it so as to fix it - the voucher on that item; but the money was spent and is on the books of account.

The Court, Did you make up this tabulation from the books?

A I made it up from the books.

Mr Britt: Let him point it out.

A I am unable to point it out; it is mixed up with the whole pipe line account which amounts to two or three hundred thousand dollars, and I am unable to locate the exact voucher for the work that was done on that particular short piece of line; most of the others, I think you will find they are all explained there, and have been done by contract.

The Court: The motion to strike out is denied.

Mr Britt: Exception.

Q Now, the next item is March, 1901, 2475 feet 14 to 18 inch pipe line from west side of lot 486 to southwest

corner lot 463, per foot 65 cents, 1680.07: Where are the vouchers for that expenditure? Where are the book entries that show it?

A That was a line that was alsolaid by the San Antonio Water Company by day's labor, and not by contract, and I got the date and the number of feet, the date being marked 1901, and the number of feet from a survey that was made by Engineer Hobbe, taken from his field book.

Q Can you point out on any exhibit or map here in evidence, the locality of that pipe line?

A I do not see any map here that has the lots numbered, on exhibit here; but I can produce a map here of that kind which will show the lots numbered and the location of the pipe lines on themaps.

Q I see that in this tabulation there is a reference made frequently to pipe lines located with reference to certain lots; now, if you will produce such a map it might conduce to our apprehension of it.

A I can produce such a map tomorrow.

Q Very well do so. I don't want to anticipate the items on this statement; I very much prefer to take them up in their order, if it will be convenient hereafter.

Mr Writ: I ask leave of the Court to suspend the cross-examination of the witness on those particularitems, until the witness is able to show us where they are.

Mr Haskell, Q At the time that you say you were present with Mr Stowell, at a conversation at which Mr Stowell stated something to the general effect that artesian wells

bored 100 feet apart were sufficient, when was that? In 1902 when you made the last purchase?

A No; I believe --

Q In 1899, wasn't it?

A In 1899, just before we had purchased the 130 inches of water.

Q And that was just before your purchase of the 130 inches was it?

A I believe it was.

Q Early in 1899?

A I believe that was the proper time.

Q And that was before the 16th street wells had been bored except well number 3 and the Haskell wells, and these had been sunk only a short distance?

A The 16th street well, known as the 16th street well number 3 was sunk before that time.

Q But the most of those 16th street wells were sunk long after that, in 1900, were they not?

A They were certainly put down after that.

Q Now, you didn't place any confidence in that statement that Mr Stowell made that wells would not affect each other within 100 feet, did you?

A I did.

Q That was no inducement to your company to purchase that property was it?

A I think it had something to do with it.

Q You think they acted partly on that statement?

A I think that the probability of that statement was a part of the inducement that might lead to the purchase of

that property.

Q You yourself believed the statement?

A I did.

Q How long did you continue to have that same opinion?

A Oh, I don't know.

Q Down to the present time?

Mr McKinley: Objected to as irrelevant and immaterial and not proper cross examination.

Q When did your company first learn that they were taking water from the Cucamonga Springs?

A I understand that they never learned it at all.

Mr McKinley: Objected to as not proper cross examination.

Q They don't claim to have ever taken any water from there?

A That is my understanding of it.

Q They never did claim the right to do it, did they?

Mr McKinley: Objected to as irrelevant, immaterial and incompetent, and not proper cross examination.

A I don't know; they might have claimed a good deal that I don't know anything at all about.

-o-

F. C. FINKLE

F. C. Finkle, a witness called by defendants, being first duly sworn, testified as follows:

Direct Examination.

Mr McKinley, Q State your name.

A F. C. Finkle.

Q Where do you reside?

A Los Angeles.

Q State whether you were present at a conversation, yourself and Mr Stowell, and Mr Shepherd being present, at the time the San Antonio Water Company was carrying on negotiations with Mr Stowell for the purchase of the 130 inches of water, in March, 1899, in which conversation you made an inquiry of Mr Stowell as to whether one well was affected by another, and he answered that 100 feet was sufficient for the protection of a well there, and called your attention to two wells located within less than 100 feet of each other and stated to you that neither affected the other?

Mr Britt: Objected to as too many questions combined in one; it embraces the time, place and circumstances of the oral declarations made, and also comprises other matters; on the further ground that it is irrelevant and immaterial, and calls for hearsay evidence; that the proper foundation has not been laid for impeaching the statement of the witness Stowell; that it does not appear that the witness Stowell denied having made any statement attributed to him in this question, and that generally the question is incompetent.

The Court: Overruled. Plaintiffs Defendants except.

A Yes, sir; I was present and made the inquiry of Mr Stowell, and received that reply.

Q State whether about March 15, 1899, as part of the same negotiations referred to in the last question, if at a conversation between yourself and Mr Stowell, and Mr Shepherd you inquired of Mr Stowell whether the wells on the north of which he had been speaking were or were not affected by or whether they did or did not affect the wells on the tract of land for which you were negotiating, and Mr Stowell answered to that inquiry that they did not have any effect one on the other?

Mr Britt: Objected to on the same grounds, and for the same reasons which were stated in the objection made to the last preceding question, and upon the further ground that it is an improper attempt to get into the record a statement of the opinion of Stowell, it not appearing that he was qualified to express an opinion on that subject.

The Court: Objection overruled. Defendant

Mr Britt: Exception.

A That was on the 15th of March, 1899.

Q You are to answer the question, whether he said those things or not.

A Yes, he did, on that date.

Mr Mc Kinley: That is all from this witness, on that subject.

-o-

Here the Court takes a recess until tomorrow, March 31, 1909, at ten o'clock a.m.

-o-

J. W. McKinley

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

Cucamonga Vineyard Co et al

Plaintiff

vs.

San Antonio Water Co et al,

Defendant

March 31, 1909

Vol. 4[illegible]

INDEX



I. BENJAMIN, Official Reporter

Mr. Stevens: Judge McKinley, it won't be necessary to have Mr. Shepherd here to identify those minute books?

Mr. McKinley: Certainly not.

Mr. Stevens: We offer the following from the minutes of the Board of Directors of the San Antonio Water Company, of a meeting held May 12, 1902, as follows:

"Moved by J. T. Lindley seconded by C. Ruedy that it is the sense of this meeting that W. T. Locke should be appointed Manager of the Ontario Power Company for the term of five years from this date. That his salary should be fixed at two thousand dollars per annum for said term. That the directors of the Ontario Power Company be instructed tom enter into a contract with said Locke on terms herein stated. Carried by unanimous vote."

Mr. Stevens: I will read from the minutes of a directors meeting held May 8, 1902, the following resolution:

"The following resolution was adopted on motion of J. T Lindley:

"Resolved that it is the sense of this board of directors that upon the assignment to W. T. Locke of the 4975 shares of the Ontario Power Company mentioned in the previous resolution, that said Locke shall be appointed by said Board of Directors of said Ontario Power Company as general manager of said Power Company for the term of five years from his appointment as such, and that a contract shall be entered into between said Power Com-

pany and said W. T. Leeke covering said term and providing that the full management of the business and affairs of said Ontario Power Company outside only of the routine business of the board of directors of said company, be committed to said W. T. Leeke at such compensation for his services as such manager as may be agreed upon for said term between said W. T. Leeke and said board of directors; and it is hereby further

Resolved that the trusteeship created by the proceeding resolution as to the 4975 shares of stock shall continue in any event during the said term of five years during which said Leeke shall act as manager of said Ontario Power Company and for such other term as he may act as such manager, and that said trusteeship shall not in the mean time be recalled or revoked by any act or resolution of the board of directors of this corporation.

Mr. Stevens: Minutes of board of directors of the San Antonio Water Company held April 22, 1901

On motion duly made and seconded it was

Resolved that water measurements be made at all the sources of this company between the 1st and 10th of each month and the same tabulated in a book made for that purposes

Mr. Stevens: Minutes of a meeting of the board of directors of the San Antonio Water Company held May 21, 1901:

Resolved that the duties of the engineer (Mr. Hobey) shall be made to make measurements of all the water supply from the different sources of this Co from the 1st to the 10th of every month and a report of same to be entered in a record book. To see that this company is getting all the water to which it is entitled from the Cucamonga Fruit Land Co To make a copy of map of the mountain water shed for the office of the forest reserve To make such maps as the board of directors may order and to do such engineering as the board may find it necessary to have done.

Mr. Stevens: We offer a letter purporting to be signed by Otis & Gregg, addressed B. C. Shepherd, secretary San Antonio Water Company, Ontario Cal., found on page 255 of Book 3 containing the minutes and proceedings of the board of directors of the San Antonio Water Company:

San Bernardino, Cal., August 25th, 1899.

B. C. Shepherd, Esq.,

Sec'y San Antonio Water Co.,

Ontario, Cal.

Dear Sir:

In regard to the contract with Stowell and the Cucamonga Fruit Land Company, we advise the turning over of the bonds in exact accordance with your agreement because the company ought to strictly carry out its contract with Stowell and the Fruit Land Company.

In regard to the action brought by some of the residents of Cucamonga against Stowell, the Cucamonga Fruit

Land Company and the San Antonio Water Company, permit us to suggest, that the possibility of a suit against your company, and possibly others, in the matter, on the ground that your company would be diverting water which would otherwise go to the Cucamonga people, was considered by you at the time of entering into the Stowell contract, and upon the best examination that you could make yourselves, assisted by the advice of expert engineers, you concluded that such would not be the case, and so far as we know, you have had no reason to change your opinion, but rather it is confirmed that you are injuring no one and depriving no one of water to which he is entitled by taking water from the lands at Cucamonga during the present or any former season.

As to the other grounds in the complaint, when you entered into the contract with Stowell and the Fruit Land Company, you relied upon the public records of the county, which records gave to the Cucamonga Fruit Land Company and Stowell the sole ownership of the lands from which you are taking water, and we think, beyond doubt, you had the right to rely upon the records.

We therefore know of no fact which can make us doubt your full success in the suit, and we believe that your company will be successful in any litigation over the taking of the water. We remain

Yours very truly,

Olin & Gregg, per H. I.

Mr. Stevens: We offer the following from the minutes of the board of directors of the San Antonio Water Company, at a meeting held August 8, 1899:

"It being necessary to construct a pipe line from the Haskel well to connect with the pipe system of this company, it was Moved by H. T. Hawkinson seconded by J. P. Ensley that this company will construct a 16 and 18 inch vitrified pipe line from the Haskel well to connect with this company's pipe lines and that the offer of Mr. A. B. Bent to construct said line at the agreed price of 82 ¢ per foot for 16 inch and 94½ ¢ for 18 inch be and the same is hereby accepted. Motion carried

Moved by H. T. Hawkinson seconded by J. P. Ensley that this company obtain a right of way across the property of A. Rubio to construct a pipe line from the Haskel well at a price not to exceed the sum of $300.00

--0--

B. C. SHEPHERD.

(Cross Examination resumed.)

Mr. Britt: Q Mr. Shepherd, have you got the map?

A Yes, sir.

Q Produce it if you please. Does this map materially differ from Map Exhibit D on the blackboard?

A I think that it is substantially the same except that it has got all of the lots numbered. That exhibit hasn't got the lots numbered.

Q By reference to this map and without putting another map in evidence, this contains a good many features, I see, which would have to be proven one way or another. Could you use this map which you now produce here and transfer the numbers with a pencil or in some other way on this Map Exhibit D?

A Yes; I think we can give the description. The pipe lines are shown on that exhibit.

Q All right. If you will use that map then for the purpose of identifying the lots, we will proceed with the business in hand which is, firstly, this tabulation which you have given us showing an expense footing up to $105,000 and upwards, the San Antonio Water Company expended on property north of 16th Street. The first item was the 750 feet of 12-inch pipe line from the southwest corner of lot 485 to the west side of lot 486. If you will just mark those two lots on this map exhibit D, we will see where they are situated. (Witness does as requested) You have marked those figures on certain squares lying between 13th and 14th streets, as indicated on map Exhibit D, and between

Euclid Avenue and San Antonio Avenue?

A Yes, sir.

Q Now that property is not north of 16th Street at all, but quite a long distance south of 16th Street.

A That is south of 16th Street.

Q And in that regard it does not correspond with this tabulation which purports to be a list of expenditures on property north of ~~the~~ 16th Street.

A If you read the entire heading of that schedule you will find that it does.

Q "Including pipe lines leading therefrom"?

A Yes.

Q And that particular piece of pipe line to which you have testified just now connects with the general pipe system of the San Antonio Water Company, does it not?

A Yes, sir.

Q And it is used to transport water from the San Antonio Water Company-- from the San Antonio Canyon?

A It is not that diagonal pipe; that diagonal pipe was laid for thepurpose of carrying water from the Haskel wellsand the 16th Street wells, and in my opinion is not used for any other purpose.

Mr. Britt: I ask that the statement of the witness as to his opinion be stricken out.

The Court: Stricken out.

Q Do you know whether it is used for any other purpose?

A No.

Q It is connected with the general pipe system of the San Antonio Water Company?

A Yes.

Q The next item which we had under consideration at the time the cross examination on this subject was discontinued is the item of x1660 , 14 to 10 inch pipe line, from the west side of lot 486 to the southwest corner of lot 463-- Wait a moment; may be we can use that other map. But I think you had better indicate these various lots on the map exhibit D, those which are referred to in this tabulation.

A I think I will ask Mr. Trask to do that.

Mr. McKinley: Mr. Trask can probably do that quicker for you.

Mr. Britt: All right. (Mr. Trask and Mr. Shepherd transfer numbers on lots on exhibit D.) Point out, if you please, on that map exhibit D that section of pipe line 2475 feet in length from the west side of lot 486 to the southwest corner of lot 463.

A It is from thepoint on the west side of lot 486--

Q In a parallelogram bounded--

A 13th and 14th Streets--

Q And San Antonio avenue and Euclid Avenue?

A Yes.

Q All right. Go ahead.

A And it extends to the southwest corner of lot 463 just east of Euclid A venue

Q Isn't that pipe line which lies nearly all of it west of Euclid Avenue connected with the general water system of the San Antonio Water Company?

A Yes; it is connected up with the pipe lines of the San Antonio Water Company that are running north and south.

Q And does not receive San Antonio water from the San Antonio Canyon and the San Antonio Tunnel?

A I don't know.

Q Let us see the vouchers for the expenditures. Is there an account kept with that pipe line?

A There is not for that particular individual pipe line.

Q Where do you get the amount $1680 for the cost?

A I find it by taking the accounts in which we have given contracts for the laying of pipe that we paid 81-1/2 cents for 14-inch pipe lines, 71-3/4 cents for 16-inch pipe lines 83-1/2 cents for 18-inch pipe lines. That would make an average price for the three sizes of 71 cents per foot; and in this case I have put the price at 65 vents, which is less than the actual cost that is paid for all the pipe of those sizes.

Q Do you know how much 14-inch and how much 18-inch pipe line, respectively, are included in that distance of 2478 feet?

A I only know what I am told by the zanjero, and also by Mr. Manley the Superintendent who had the superintendance of laying the pipe.

Q What did they report to you?

A That the 18-inch pipe was laid from the southwestcorner of lot 463 to the west side of lot 479; that the 16-inch pipe was laid from the west side of lot 479 to the southwest corner of lot 480; that the 14-inch pipe line was laid from the southwest corner of lot 480 to the west side of lot 486.

Q When was that expense incurred? I am more concerned about

the dates than I am about the exact amount.

A That piece of pipe was laid in March and April, 1901.

Q How do you ascertain it?

A I get the date from the field book of Mr. Hobby who was the engineer of the company at that time.

Q What is the entry in the field book?

A The entry on page 2 of the field book gives March 20, 1901.

Q What does it say? I asked for the entry.

A This states levels for diagonal line from Emilie Avenue and 14th Street to the southwest corner of lot 480, 20th of Marhh, 1901. on page 2.

Q What occurs under that e try to identify that piece of pipe line?

A The description were just read identifies the pipe line. These other figures are certain levels and numbers of feet which I individually am not very conversant with, not being a civil engineer.

Those are levels; and I am willing to infer from this book of March 1901-- But this does not show when the pipe was constructed.

A That pipe was constructed just the same time; as soon as the pipe could be laid after the survey was made.

Q Do you remember the circumstance of the running of the levels?

A I remember the circumstance of the pipe line being laid; I don't know that I can call to mind now the details of the levels.

Q Do you know anything about what length of time expired

after the levels were run before the pipe line was ~~xxxx~~ laid?

A I can't give you any exact time, but the work was rushed.

Q Well, it was constructed some time after March 26, 1901?

A Yes, sir.

Q But you are unable to define the time?

A I can't give the day any further than the statement that I have made and the statement that has been given to me by the superintendent of the company who had charge of the works, and also Mr. Fuller the zanjero she has charge of the pipe lines in that part of the colony.

Mr. Britt: The statement made by these people included in the last portion of the answer, I move to be stricken out as not responsive to the question, and hearsay.

The Court: Stricken out.

Q The next item is $9863 and seems to bear a double date; that is, from May, 1900, to August, 1902. Where is that piece of pipe line-- 20 inch pipe line from the Southwest corner of lot 463 to the center of lot 418, $9863.64?

A It begins at the southwest corner of lot 463 at Euclid Avenue and extends to about the center of lot 418 north of 16th Street.

Q That is somewhere not far from what we call the Rubio well or well no. 6?

A A very short distance.

Q This expenditure is indicated between May, 1900, to August, 1902, and I infer that that covers ~~a xxxxxxxxxxx~~ the time of construction. Is that correct?

A Those dates, I believe, refer to an account of Mr. A. H. Dent, ~~xxx xx xxxx xxxxx~~ or two accounts of Mr. Dent,

one of them being May 1st, the other August 25.

Q Of what year?

A May 1st, 1900, to August 25, 1902.

Q What is the amount of each account?

A The amount of the account of May 1st, 1900, for 5661 feet of 20-inch pipe amounts to $5148.35.

Q That 20-inch pipe extended between what points? Are you able to say?

A That would be between thepoints already pointed out on the map.

Q Which part of it? Was it commencing at the middle of lot 418 and extending thence west or southwesterly, or did it commence at the southwest corner of lot 463 and extend thence northeasterly?

A The account that I stated there, August 25, I think should be July 15; and the two bills include about 20-inch pipe line laid as already described. I don't know which end he started on or which end he ended on.

Q You don't know whether the expense referred to in the bill of May, 1900, was for the pipe line laid from Euclid Avenue northeasterly or from lot 418 southwesterly?

A No, sir; I don't know.

Q You know that that bill is for a pipe line laid in that stretch or reach of country between the points last mentioned?

A Yes, sir.

Q What is your means of information?

A The contracts were let to Mr. A. S. Bent for that work and I remember when the work was done.

Q Have you got the contract?

io; have not.

What became of it?

A I don't think there was any formal contract; it was just in the form of a letter and the bills that I have here indicate that a pipe was laid on the 16th street line.

Q So stated in the bills?

A So stated in the bills.

Q How much of that pipe line lies within the system of the distributing pipe which connects with the water of the San Antonio Canyon, having in mind that the last section that you described extends northeasterly from the southwest corner of lot 463.

A The part of that pipe which connects with the system of the San Antonio Water Company running north and south would be between the southwest corner of lot 463 and the northwest corner of lot 441. That is about from Euclid Avenue to Campus Avenue.

Q To where it crosses Campus Avenue?

A To where it crosses Campus Avenue.

Q A distane of something like three-quarters of a mile, isn't it?

A The distane between the two avenues is half a mile; but as the pipe runs in a diagonal direction thepipe line would be a little over half a mile.

Q Has that pipe line been used to carry water also coming from the San Antonio Canyon?

A I don't know.

Q That pipe line was constructed at sundry times between the dates you mention, that is, May, 1900, and August, 1902?

A I think that one stretch of pipe was constructed in May, 1900 or about May, 1900, and another stretch of the same pipe line was constructed in July or about July, 1902.

Q All right. Now the next item is 2042 feet 18-inch pipe line, from the northeast corner of lot 418 to the bankall well, and the charge here for that is $1929.69.

Q What was the ~~xxxxxx~~ time of the construction of that pipe line?

A That was constructed some time in the year 1899, previous to September 18.

Q Can you state the time?

A I can only fix the time by the account here of Mr. A. S. Bent on September 18, 1899, in which we paid for the work.

Q Have you got Mr. Bent's account?

A I have got Mr. Bent's account.

Q Let me see it, if you please. It doesn't give any dates further than it is headed September 18, 1899.

A That is the only date it gives.

Q The next item is 1899, September, 1374 feet of 16-inch pipe line, from northwest corner of lot 419 to the north corner of lot 418, $3024.68. Is that a duplication of the cost of the same pipe line in the previous item of 9863?

A No, sir; it is not a duplication of the cost of the same pipe line, but it is a duplication of the pipe line. Two pipe lines were constructed between those points; there was a 16-inch pipe line and a 20 inch pipe line.

Q What water was transported through those two pipe lines?

from the northeast corner of lot 410? There wasn't any water transported through that except water from the Haskell well, was there?

A I think that the two pipe lines were connected so that both the water from the Haskell wells and the water from the 16th Street wells would flow in either pipe.

Q Without giving any suppositions or indulging in any surmises, why would it be necessary to have a 16-inch pipe line and a 20-inch pipe line running from the same well or covering the same ground? There is only one pipe indicated on the map, and I infer that the two pipe lines were laid almost side by side. Is that so.?

A That is so. It was simply to increase the capacity mf; the 16 inch or the 20 inch pipe line, whichever was laid first, was insufficient in capacity, and the second pipe was laid.

Q Was the 16-inch pipe line taken up?

A No, sir.

Q Is it yet in the ground? Are they both used for carrying away water from the Haskell well?

A They are both used for carrying water both from the Haskell wells and the 16th Street wells.

Q Do you mean that it requires two pipe lines of those dimensions to transport water from those wells?

A I don't mean to say what is required; I simply give the facts that the two pipe lines were laid and that the secondone that was laid was to increase the capacity.

Q The first one was found too small, was it?

A I can't recall the details of just why those two pipe

lines were laid at the time, except that the one pipe line was not supposed to be of sufficient capacity, or that it was not of sufficient capacity; and the second pipe line and the expenditure there was never made without some good reason, because my recollection is that we were not throwing any money away for idle purposes.

Q The next item, 25.0 feet 10-inch steel pipe line from 16th Street wells south to main pipe line. I do not make any question as to the amounts, but I would like to have the dates.

A I am unable to give the dates when these different pipe lines were laid, because they were laid at different times after each well was finished and the pumping plants put in. The pipe line to the main line was put in at various times as the pumping plants were installed.

Q How do you get the amount then if you can't tell when they were placed? How do you find the accounts or data which show the amount?

A I got the superintendent of the company to go over a way and take his rule and make a scale to show the length of pipe from each well to the main line, and he states that the 2500 feet he believes from his investigations to be actually less than the amount. That is, he wished to be very conservative. He says it is more than the 2500 feet, but that there is 2500 feet or more in that vicinity.

Q But you have put it down here as an expenditure in September, 1929. Is that so? The date of that expenditure is of more moment than the exact number of feet or cost per foot.

A The account here exhibited does not state that it was put in in September, 1899. In other words, there is no date connected with that item.

Q Isn't the last date September, 1899?

A It has nothing to do with the 2500 feet.

Q One would reasonably think that on reciving a bill of items the only date of which is 1899, September, that they all referred to the same date.

A Some people might, but I wouldn't.

Q It is not thecase here?

A That is not the case here.

Q Tell us when those pipe lines were put in.

A I am unable to tell you when the pipe lines were put in except to allude to the time that the pumping plants were installed.

Q Can you tell that?

A No, sir; I can't tell that.

For anything you know, may not those 10-inch steel pipe lines have been put in last year or the year before?

A I don't think there has any of those steel pipe lines been put in for at least four years.

Q This case was commenced more than five years ago and some of them may have been put in after the commencement of this suit. You can't tell that?

A I can't tell that.

Q The next is 15-- feet of 12-inch cement pipe line from wells to main pipe line at 75 cents. $1125. When were those pipes put in?

A Well, my evidence in regard to that 2500 feet would apply to that 1500 feet also.

Q Expended on 16th Street well, April 1890 to November 1903 the sum of 1400.25. Those are the expenditures which we discussed yesterday and which are shown in the bundles of accounts, exhibits W and X and Y?

A Yes, sir.

Q The next is , expended on Frankish and Stamm development, November, 1899, to April, 1903, ledger folio 57, $18,431.89. We would like to know xof what that quite considerable amount is made up.

A That account is made up of all the money that was expended on the Frankish and Stamm development in sinking wells-- bored wells-- labor on those bored wells, the pipe in those bored wells, sinking the shaft, curbing up the shafts, and then any other necessary work that was thought best to expend on the property to produce water.

Q What do you call the Frankish and Stamm development?

A The Frankish and Stamm development--

Q Does it include the Frankish and Stamm tunnel?

A The Frankish and Stamm development as on the ledger includes the Frankish and Stamm tunnel and the lands on which that tunnel is situated; but the schedule of expenses on thatlist does not include any work or any expenses on the Frankish and Stamm tunnel or on any of the land on which thatlitunnel is located. It includes solely to the 90-acre tract just north of 16th Street.

Q What part of the Frankish and Stamm development, November, 1899, to April, 1903-- have you got the voucher for that? This is a large sum, $18,000. and upwards. I would like to know what it consists of.

A I think I have already told you what it consists of. If you want the vouchers here they will be brought, but I assure you if you examine them all the Court will sit here for several weeks more.

Q All I want to know, what particular wells you refer to as the Frankish and Stamm development.

A There are five wells, nos. 1, 2, 3, 4 and 5, as indicated on some of these exhibits. They have been testified to here by different parties.

Q I begin to understand that it is these 16th S reet wells.

A Yes, sir.

Q You call those wells 1, 2, 3, 4, 5, Frankish and Stamm development?

A Yes, sir.

Q Then this $18,431.89 includes the cost of sinking those wells?

A Yes, sir.

Q And cost of installing machinery in them?

A Let's see. I may be mistaken on that. I have got thepumping plants in a separate item; but it also-- No, that is correct, Mr. Britt.

Mr. Surr: Q What is correct?

A That that money that was expended, that $18,431. was for the development of the property, sinking the wells and shafts etc.

Mr. Britt: Q You kept an account with each well, did you not?

A I did not.

Q You have merely got Frankish and Stamm development?

A Yes, sir.

Q Will you look at your ledger a moment? That begins November 15, 1899, with 22,606. You don't mean to say that the 16th Street wells had cost any such sum up to November 15, 1899?

A No, sir; that 22,606 on the ledger is not all on that schedule that I have introduced in evidence.

Q Will your accounts show, from which this item of $18,431 is taken, the times when those several wells were sunk?

A I think I have right here the bills that we paid to the well driller for drilling the wells.

Q I am not so much concerned about any other wells except well no. 3. If you will let us know just what work was done on that well no. 3, commencing with the date given here, November '99, I will be obliged. That is the part that is carried into that item of $18,431.

Q Could you find that voucher?

A It would be impossible to furnish those vouchers because there were items of work done on that well no. 3 that would be charged up to the Frankish and Stern development, and I wouldn't know whether it was on no. 3 or some other part of the development.

Q Do you know what was the cost of drilling any one of those wells there numbered 1, 2, 3, 4 or 5, included in the Frankish development? Have you any papers or accounts which would show what any one or more of them cost for drilling?

A I only have an account that would show what the cost of the labor was for drilling; I have no accounts here that

would show the cost of the pipe that was used.

Q That is, for casing the well?

A That is for drilling away down in the bottom of the shaft; there is no account which would show the sinking of the shaft down to the water level of any particular one well.

Q Possibly we can derive some light on the subject by giving the cost of labor of drilling one or more of these wells that was carried into this charge of $18,431.

A I find according to the account of Beck Brothers dated April 25, 1902, that we paid them $1309.00 for labor in drilling well no. 5. I don't think that this number on this voucher would be the same number indicated on the exhibits.

Q Do you know which well it does refer to?

A I do not; I only know that it would be the fifth well that was drilled by them.

Q And to what depth--

A And my opinion would be--

Q This well would be 643 feet deep?

A My opinion would be that it was well no. 1, but I can't state that positively.

Q Does that account show the date when that well was sunk?

A No; this account only shows the time that the account was made out and the money paid.

Q That was April 25, 1902?

A Yes, sir. We paid for those wells, according to my recollection, as soon as they were finished.

Q And the total amount for drilling that well was--

A $1339.80.

Q Have you a like account for drilling the other wells?

A I have an account of December 4, 1901, in favor of Beck Brothers for drilling well no. 4 at 16th Street. The amount of that account is $1624.20.

Q What is the depth?

A 707 feet.

Q And the first one you referred to was 643 feet?

A Yes, sir; 643 feet. I have another account dated August 29, 1901, in favor of Beck Brothers for drilling well no. 3 at 16th Street. Total amount of bill, $1594.75. Depth of well 705 feet.

Mr. Jolliffe: That well no. 3 does that refer to well no. 3 on the exhibit?

A No; these numbers on these vouchers do not correspond to the numbers on the exhibits. The numbers on these vouchers refer to the location in which he drilled the wells. I have a bill of November 15, 1900, in favor of Beck Brothers for drilling well no. 2 on the 16th Street property; total amount of bill, $1271.40; depth of well, 624 feet.

I have another account dated October, 1900, for sinking well no. 2 at the Haskell property; total amount of bill, $909.09; depth of well, 514 feet.

I have another account dated May 14, 1900, in favor of Beck Brothers, for drilling 16th Street well 640 feet; total amount of bill, $1329. Total depth, 640.

I have another account here dated September 19, 1899,

in favor of A. F. Hallstrom for drilling well at Haskell property; total amount of bill, $1[illegible]1.40; depth of well, 649 feet.

Q That is all, is it?

A Yes, sir.

Q Those several accounts which you have just now mentioned we desire to place in evidence. Those several accounts were presented and rendered shortly after the completion of the work to which they refer?

A Yes, sir.

Q And I understood you to say a while ago that they were paid almost immediately after the work was done?

A Yes, sir.

Q If you will take from this bunch of bills in which they are included those accounts to which you have referred as accounts for drilling , I will be much obliged. These accounts all refer to the 16th Street wells other than the Rubio well, as I understand?

A Yes, sir; the 16th Street and the Haskell wells.

BILLS REFERRED TO MARKED PLAINTIFFS' EXHIBIT 82.

Q Expended on Frankish and Stamm development, April, 1903, to January 1905, ledger folio 39, $2140.95. Are you able to tell from the ledger or otherwise what that expenditure was for?

A That is a continuation of the Frankish and Stamm development account from Ledger A to Ledger B.

Q Does it include the expense of operating the wells?

A It does not.

Q What does it include?

A Only money that was expended on the property that would be a permanent investment and would indicate the cost of the property.

Q Can you refer to any vouchers or accounts herewhich show generally the nature of the work, without going into particulars and details? Any vouchers or accounts of that kind amount?

A I haven't got the vouchers and accounts; they would be very numerous; I have got theamounts here in this-- totals.

Q What part of that sum of $2140 wasexpended subsequently to March 1st, 1904?

A $1481.77.

Q That amount was expended between March 1st, 1904, and January 1 1905?

A Yes, sir.

Q What was the amount in March, 1904?

A $37.77.

Q The next is an item of $12,150, for five complete pumping plants, installed on 16th Street lands, F & S. I suppose that means Frankish & Stamm?

A Yes, sir.

Q At $2426 each.

A Yes, sir.

Q Give us the dates, if you please.

A I am unable to give you those dates.

Q Don't thebooks show when as large an item as $2426 was incurred?

A Then expense of pumping plants was incurred at different times and for different places, all charged up to pumping plants; and whether those plants would be at 16th street or at the Haskell well property or at Claremont or in San Antonio Canyon or any other place that we were installing pumping plants.

Q Just find the ledger account of pumping expense and let us see these items.

Mr. Surr: It wouldn't be under pumping expense, would it?

A You want to know about the cost of pumping plants?

Mr. Britt: Q Yes; and the dates.

A I can't give you the dates. I can tell you how I made it up, but I can't give you the dates.

Q Have you any account at all which shows what pumping plants cost or what you paid for them?

A Our pumping plant account is all merged into one account the same as our pipe line account, and would amount to $40,000 or $50,000, and when we installed a plant at any particular well we didn't keep an account of the separate cost of that individual pumping plant.

Q What do you include in the pumping plant?

A Here are the details.

Q I suppose it includes an engine-- gasoline engine and pipe and appliances, gearing attachments connected with the pump?

A Yes, sir; suction pipe, discharge pipe, pumps, motors, shafting, bearings, couplings, frame work--

Q All right.

A Discharge elbows--

Q It is not necessary to enumerate in detail. Speaking

generally now, how are you able to say that the pumping plants on these wells cost the amount stated here, $2426 each?

A Mr. Manly the superintendent of the company who installs all these plants and myself went over the books very carefully to find out the cost of the different articles that comprise a pumping plant, and spent hours at it, and I have the tabulated list here that we arrived at, showing the cost of pumping plants to be $2426.50.

The Court: Q Is the cost of the different pumping plants about the same?

A The pumping plants on 16th Street are practically all alike.

Q And , generally speaking, you include in a pumping plant everything necessary to raise the water and put it into the distributing pipe?

A Yes, sir.

Q But don't include the distributing pipe?

A No, sir.

Q You are wholly unable to state the time when the several pumping plants were installed?

A No; I am not able to do so.

Q The next item is to Rubio for right of way for pipe lines to Haskell well, $300. That was August, 1899, was it?

A Yes, sir.

Q And was it before there was any pipe line constructed to the Haskell well?

A I think that payment was made before. But I wish to make a correction. I made a mistake. That item is not $300 but $200.

SUPERIOR COURT

Q Next is cost of water rights on Rubio l ands, amounting to $14,854.57, and it is given as a date here, 1902, May, to October, 1906. What do you call the Rubio Lands?

A That was the property that was purchased by Mr. A. T. Leeke and held as trustee. Part of that property on which the orchard is situated being afterwards sold and the remaining land and the water rights and the total lands was deeded to the San Antonio Water Company by Mr. Leeke.

Here the Court takes a recess until two o'clock p.m.

---o/o---

Afternoon Session 2 p.m.

Cross Examination of S. C. Shepherd, Resumed.

Mr Britt, Q Turn to the leger account if you please, folio 208, we would like to have the items of that cost of water rights on the Rubio place, which are put here at $14,834.57. You have those items covering a period of four years, down to October, 1906, two years after the commencement of this action, so I want a segregation of those matters as to time?

A Well, Mr Britt, in that account there are a good many items after March 1, 1904, on the debit and credit side of the ledger, and I suggest as it would be more satisfactory to this evening make up a detailed account of that which would be much easier than to explain it from the book here.

Q I care much less about details and particulars than I do about ascertaining the nature of the property which is described as water rights on Rubio lands. Now, it has appeared here that the San Antonio Water Company has pumped the Rubio well very little, and I don't see that it has ever deepened or drilled that well in these accounts, that you have put in here; so what water rights are there that have cost $14,834, on the Rubio lands? Have you included in that $14,834 the lands which were purchased from Rubio?

A I think I have , Mr Britt; that is a portion.

Q Tell us how much and what the cost was?

A I couldn't say about that portion that is left; I might explain that the entire property was purchased by Mr Leeke and held in trust.

Q Well, give the amount of the purchase and the amount that was paid for it? I think we have had that date here early in the trial but I have forgotten it; but I don't think wehave had the amount paid.

A The first charge made in the ledger of the company, referring to that property is on page 203, and is under the heading of . T. Leeke, trustee, April, 1903, $13,714.97.

Q What was that for?

A I can only state that from memory as I have not the voucher here with me.

Q Well, what is your recollection of it?

A The first cash payment on account of the property.

Q What does the property consist of? A tract of land?

A Yes, sir.

Q An orange orchard?

A Yes, sir.

Q What is the extent of it?

A I think there was about 40 acres of an orange orchard, and about 15 to 20 acres of wash land.

Q How much acreage altogether?

A My recollection is about 58 acres.

Q And is that $13,000 plus, of April, 1903, a part of the $14,834.57, mentioned in this account of expenses on property north of 16th street?

A Yes, sir.

Q Well, then that would account for the most of it. What is the balance made up of generally? I don't care about small matters if you can give the larger items.

A There were a lot of other payments made, and there was

quite a large sum of money received from the sale of oranges, and also for the sale of the 40 acres, which should properly be deducted from that $15,000; about $14,000 I understand that the 40 acre orange orchard was sold for, and would have to be deducted from that.

Q The 40 acre orange orchard was sold was it?

A It was sold.

Q What did it fetch?

A I find a credit on the account of moneys received from J. J. Atwood and T. S. Wallene, March 23, 1906, $1000; March 23, the same date, $14,000.

Q So the orange orchard was sold for $15,000?

A It would so appear from the records, on the ledger of the company.

Q Well, proceed next to the item of cost of Frankish and Stamm developments on foreclosure of 20 trade Ontario Colony Lands, lots 381, 383, 384, 384, 415, 415, 416, 417, and 418, $15,132.54. Reference is made to record book 3, folio 173.

A In the record book of the San Antonio Water Company, book 3, page 173, at a meeting held February 7, 1899, the following resolution appears: Whereas, the sale of the Frankish and Stamm property under the foreclosure proceedings of this company, takes place at San Bernardino on February 4th, therefore, resolved, that the president of this company is hereby instructed to be present at said sale and bid in the property at the following prices: Lot 381, $250.00; lot 382, $1000.00; lot 383, 7132.54; lot 384, $500.00; lot 415, $500.00; lot 416, $4000.00; lot 417, $1000.00

lot 418, $300.00; block 14, $200.00; block 39, $400.00; block 59, $1000.00.

Q These lots 281, 282, 283, 384, 415, 416, 417, and 418, are lots which include the present 16th street wells numbers 1, 2, 3, 4, and 5, are they?

A Yes, sir.

Q Your company, the San Antonio Water Company had a mortgage on those lots, had it?

A Yes, sir.

Q And it had been foreclosed, and the resolution there which you have read was authority to the president or manager of the company to bid them in at the prices named?

A Yes, sir.

Q What is the total of those prices?

A $15,132.54.

Q That is the amount of the items given here in the statement which you delivered into court yesterday, of amount expended on property north of 16th street?

A Yes, sir.

Q Did the president and manager follow the direction there and bid them in accordingly?

A Yes, sir.

Q And afterwards got a deed?

A Yes, sir.

Q Do you remember about what time the deed was received?

A Six months afterwards.

Q Now, that mortgave had been standing how long?

A September, 1894.

Q Made by Frankish and Stamm or by their corporation,

the Ontario Land and Improvement Company to the San Antonio Water Company?

A It was made by R. . Frankish, Charles Frankish and G. T. Stamm.

Q And that was the mortgage, the foreclosure of which resulted in this sale which you have just now described?

A Yes, sir.

Q The next item, $3500, for the purchase of lots 4 and 5 block 20, Cucamonga Homestead Association, from H. W. Keller: The purchase was made in July, 1899, was it? It says Book 3, folio 236.

A That was purchased in July, 1899.

Q Paid for then?

A Yes, sir.

Q What is the acreage of those lots 4 and 5?

A 40 acres.

Q And this $3500 was devoted entirely to the purchase of that 40 acres was it?

A Yes, sir.

Q Does the Company still own the 40 acres?

A Yes, sir.

Q The San Antonio Water Company?

A Yes, sir.

Q Is it good land?

A It is ordinary good land I think.

Q The well number 8, the well we call here number 8, is one of the Haskell wells, and is situated on that tract isn't it?

A Yes, sir.

Q And it is just over the edge of the tract, about 120

feet from the other Haskell well?

A About that.

Q How far does that well number 6 stand from the dividing line between the Keller and the Haskell lot?

A Oh, it might be anywhere between 50 and 100 feet.

Q Might it not be as low as 25 feet?

A I think not; I think it is between 50 and 100 feet.

Q That well was bored after the purchase of the property from Keller wasn't it?

A Yes, sir.

Q The San Antonio Water Company has no other water development on the Keller tract, besides that well number 8 - none that it uses?

A None that it uses.

Q Did the company pay cash forthat Keller purchase?

A There was a mortgage for an amount that they assumed.

Q A mortgage to the company?

A No, a mortgage to Eleanor Freeman.

Q What was the actual cost tothe company of the Keller purchase?

A $3560; if the last questions you have asked me were in regard to the Keller property my answer is entirely wrong.

Q Well, I had reference to the Keller property, lots 4 and 5.

A I gave you a price there; you referred to a mortgage, which refers entirely to the Haskell property, and not to the Keller, so I probably got mixed up on it; there was no mortgage on the Keller property; the Keller property was

paid for entirely in cash, $3500 and nothing assumed.

Q. The next item is lot 6, block 18, Cucamonga Homestead Association, purchased of Haskell, $6000; What was the date of that purchase? I think it appears here in a deed, but I don't remember the date.

A. July, 1899.

Q. How was that property paid for? Was there a previous mortgage on it held by the company?

A. No, sir; there was a previous mortgage held by Eleanor Freeman, and the company assumed that mortgage of $1400.

Q. Did it pay the balance of the money to Haskell, in cash, or was it paid in some other way?

A. They gave $1600 in cash to Nellie M. Haskell, and $1000 in notes to Nellie M. Haskell - -

Q. Was it out $6000 in money for the lots? That is all I care to know.

A. It was.

Q. Does the company still own lot 6 in block 18?

A. Yes, sir.

Q. What is the acreage?

A. Twenty acres.

Q. Good land is it?

A. I think so.

Q. Orange orchard on it?

A. No, sir.

Q. Any other kind of an orchard on it?

A. No, sir.

Q. The next is $7006.76, for amount expended on the Haskell and Keller development, from July, 1899 to April, 1903,

ledger account folio 129: Can you give us quickly the items of that expenditure and their dates?

A The same thing would apply to the Haskell - Keller development in regard to the charges against it, as applies to the Frankish and Stamm development, about which I testified this morning; it is in various items running over a period of time, the vouchers of which I have not got here, but they appear on the ledger.

Q Do you know from memory what the principal items were?

A The principal items would be sinking the wells, and paying for the labor in sinking the wells and sinking the shafts, and paying for the piping that was used in the bored wells.

Q Anything for labor in operating the pumps?

A Not a thing.

Q Anything for repairs or replacements?

A Nothing for repairs or replacements; nothing but legitimate charges against the property which might be construed as an asset.

Q You have here as expended on the Haskell Keller development from April 1903, to November, 1905, $154.50, ledger folio 45; State as briefly as possible what that is?

A That account is a continuation from ledger A into Ledger B, of the Haskell Keller development, and the entries on the ledger don't show what the money was expended for, except that it was spent in the same way that the other charges were.

Q Must it not have been for repairs of some sort?

A No, sir.

Q What new work was done by the company on those wells during that time?

A Well, I couldn't tell you what work was done without hunting up the vouchers, but I only know that in making these charges I was always very careful not to charge up any expense for pumping or expenses on the property, but to only charge up against the property such items as would be actual improvement, something that would be a tangible asset.

Q How much of that last account occurred after March 1, 1904, the total being $154.50, how much would come off that as money expended after March 1, 1904?

A $509.50.

Q There is some mistake there, because the whole item is $154.50.

A Perhaps I can explain it so you will understand it; there appears charges here subsequent to March 1 against the property of $654.50; and there are credits.

Q What are the credits for?

A That property was sometimes rented for growing grain, and in making up that item those credits were taken from the 654.50.

Q Was that Heller 40 acres rented also by the company for the purpose of growing grain or other purposes?

A Yes, sir.

Q Every year?

A I don't know.

Q Was it usually rented?

A I think it was usually rented.

Q What did they get for it approximately?

A About $20 a year; 20 to 25 dollars a year.

A About $20 a year; $20 to $25 a year.

Q 40 acres of land rented for $20 to $25 a year?

A That is what appears on the books here; I think that is right; just for growing grain.

Q Is that all land is worth there for growing grain, fifty cents an acre?

A I don't know anything about what it is worth; I only know what is on the books; and that is my recollection of what it was rented for.

Q And that is all you know about it?

A That is all I know about the rental part of it.

Q You come here and say as a matter of fact that the land was rented for $20 or $25 a year, 40 acres of land?

A That is what I think.

Q Let me see your book entry. Read it.

A September, credit to cash, $20; 1903, November, $25; and in September, there is a credit of $20.

Q Well, there would be $65 in a quarter of a year?

A That is the way it appears on the books.

Q Why do you say it was rented for $20 a year?

A Because that is my recollection of it.

Q Notwithstanding your books?

A While that appears in a quarterof a year, it might extend over a large time for renting purposes.

Q You told us all you know about it is what appeared in the books?

A Yes, sir; in regard to that rental part of it; the other part I am only guessing at from memory.

Q You still say it was rented for $20 a year do you?

A I didn't say it was; I say I believe it was; I don't know absolutely it was.

Q You say that, notwithstanding what appears in the books?

A Yes, sir.

Q And all you know about it is what appears in the books?

A Yes, sir; on that Haskell Keller development as it appears in the books.

Q In the next place you have claimed a credit here for two complete pumping plants installed on Marshall-Keller development, $2426 each, amounting to $4852? What was the date of the installation of those two plants?

A I don't know.

Mr Britt: Now, if the Court please that completes this list of items amounting to $[illegible],[illegible].03, as they total up, on this sheet, which was introduced in evidence by the witness yesterday. Now, we move to strike out, and exclude from consideration for any purpose in this case, all those items included in the entry on this sheet, as expended on Frankish and Stamm development, April 1903, to January , 1905 $2140.93, which items occur after the commencement of this action, towit, March 1, 1904,- and which the witness said were some $1400 in amount.

Mr Joliffe: Ofcourse as to the items which appear were after the year 1904, that is after March 1, 1904, we have no objection to their being stricken out.

The Court: All right; that disposes of that part of it; that portion which appears to have been incurred after March 1, 1904, will be struck out by consent.

Mr Britt: Now, the next item of $12,130, for five complete

pumping plants, said to be installed on the 16th street lands, $2436 each, amounting to $12,120, we ask that that be stricken out and excluded from the consideration f the Court, for the witness states that he is unable to state when those expenses were incurred.

The Court: The motion will be denied.

Mr Britt: Exception.

Mr Britt: Next we ask the Court to strike out from the evidence, and to exclude from any consideration in the case, the so-called cost of water rights on Rubio lands, amounting to $14,834.57, for the reason that it does not appear that the expenditure made was for any purpose of supplying water through the system of the defendant, or the pipe lines which are described in other portions of this statement, and it further appears that the whole amount and more too was recouped by the mortgagee upon the sale of the orange orchard for $15,000.

The Court: The motion is denied.

Mr Britt: Exception.

The Court: Does the defense concede that they have no right to put in evidence any of these items of cost, which occurred after the commencement of this action?

Mr McKinley: As far as items are concerned, after the commencement of the action, they should not be in, and I did not know that they were/

Mr Britt: We move to strike out from the statement, and to exclude from consideration as evidence in the case, the item of $10,137.04, claimed for the cost of the Frankish and Stone lands purchased on foreclosure of mortgage,

being the lots on which wells numbers 1, 2, 3, A, and B, of the 16th street series are situated, for the reason that it appears that those lots were taken upon foreclosure of a mortgage held by the San Antonio Water Company against Frankish and others on a mortgage which dated back to 1894 which ofcourse could not affect any of the issues made in this case; and that the purchase by the company, I might say as my inference from the facts, is not one which it is entitled to claim the benefit of here for any purpose, whether to establish an estoppel in pais, or otherwise.

The Court: I will deny the motion as to this, and all these previous matters as to which a similar motion was denied, Judge Britt, without prejudice to your right to renew the motion later on if you care to do so; it may be that in the ultimate summing up of this case, that a great many of these things that we are attaching a great deal of importance to, would be immaterial, and I would not be surprised if that should be so.

Mr Britt: We will take an exception.

Q Now, I shall pass much more rapidly over the matter of the expenditures on the property west of Cucamonga Red Hill because it has been gone into at considerable length, much of it; the first item to which I attract the attention of the witness, however, is that of 2973 feet of pipe line, 30 inch from the northeast corner of lot 548, to the Radio tunnel, at $1.20, $3567.60: You observe that?

A Was that expenditure by the Ontario Power Company?

Q No, sir.

A Well, then you have the wrong exhibit.

Q Who has the wrong exhibit?

A I don't know.

Q It is given here as San Antonio Water Company expense, of date August, 1902.

A That should be eliminated; that was not in the statement as I handed it in; some one has given you the wrong paper.

Q I want to see where that occurs in the books of the San Antonio Water Company; look it up in the books of the San Antonio water company.

A That item was made up, the same as all the other balances are; it is not a separate item in the books of the San Antonio Water Company.

Q Well, the expense of it must be in the books of the San Antonio Water Company?

A It certainly is, but I cannot segregate it and apply it to that one particular pipe line.

Q The San Antonio Water Company paid for it did it?

A The San Antonio Water Company paid for digging the trench and for laying the pipe; the Ontario Power Company furnished the pipe, and the San Antonio Water Company was afterwards reimbursed for its portion of the expenses and the account appears in the ledger of of the Ontario Power Company as a Cucamonga pipe line, in which they incurred all the expense.

Q Well, let us see those accounts of the San Antonio Water Company and the Ontario Power Company to which you have just now referred?

A It would be impossible to show the particular account

here referred to, for the reason that the cross entries on the journal books of the two companies are very complicated, and it might take many hours to hunt up that particularitem.

Q That 30-inch pipe line is the one leading from the mouth of the Radio tunnel westerly to the Ontario Colony lands isn't it?

A Yes, sir.

Q And runs alongside of the 20 or 24 inch pipe line which was constructed in 1898 by the San Antonio Water Company?

A Yes, sir.

Q Now, you say that the San Antonio Water Company paid for digging the trench in which that 30 inch pipe line was laid, and for laying the pipe; haven't you some entries in the books to show when thatwas done?

A Yes, sir; here is an account of Arthur S. Bent, dated August 20, 1902, against the San Antonio Water Company, in which he charges up 2973 feet 30 inch cement pipe laid at 15 cents.

Q That is the expense of laying the pipe?

A Yes, sir; that is the expense of laying the pipe in the trench.

Q Well, the pipe was longer than that wasn't it? However, that pipe I think connected with a box of some sort, from which there was only one pipe returning thence westerly.

A I think that is thecorrect length of the pipe; the San Antonio Water Company also paid Mr Bent for digging the trench, and the reason that was done was that Mr Bent had other contracts at the same time for the extension of this

line through the Colony Lands, and we let or Bent go ahead with this trenching and with laying the pipe, and the entire bills were charged against the San Antonio Water Company, but afterwards in adjustment between the San Antonio Water Company and the Ontario Power Company, the Ontario Power Company assumed the amount.

Q At what time was that adjustment made?

A I don't know; it was sometime afterwards.

Q Several years or several months?

A I find in the ledger of the Ontario Power Company at page 50, an account headed Cucamonga Pipe Line; this pipe line was the 30 inch pipe line under discussion, and there are entries on that page of the ledger extending from June, 1902 to January, 1904; that adjustment might have been made in any one of those entries but I cannot point it out.

Q Or it might have been made later?

A No, it could not have been made later, because that is the last charge against the Cucamonga pipe line of the Ontario Power Company.

Q Well, it might not be there at all if you can't identify it?

A It is certainly there.

Q But you don't know which one?

A I don't know which one.

Q Those charges seem to range from $4.00 and something up to a $1000?

A Yes, sir; and you come to hunt up the vouchers, there are ten times as many vouchers as there are items or entries in that account, because the Ontario Power Company

made the pipe itself, by day's work, and paid the wages, and for the cement, and other items.

Q We will take the next item on this statement, of expenditures on property west of the Cucamonga Red Hill, and I find it is August, 1903, 1650 feet, pipe line from the southwest corner of lot 554 to Euclid Avenue and 10th street. and amounting to $829.

Mr McKinley: We will consent to eliminate that.

Mr Britt: I suppose the next item 1014 feet of pipe line from 10th street and Euclid Avenue to division box north of 9th street $456.50 , will take the same course.

Mr McKinley: Yes, that may take the same course.

A That was a line laid by Mr Manly in 1908.

Mr McKinley: Well, eliminate it.

Q Then the next items relate to payments made in bonds, for water purchased from the Cucamonga Fruit Land Company and from H. W. Stowell; those were made in August, 1899, $50,000 and $30,000, respectively?

A Yes, sir; that is, those bonds were delivered out of escrow at that time.

Q In 1901 there is an entry of a payment made the Cucamonga Fruit Land Company cash $12,500.00

A Yes, sir.

Q Was that a part paymenton the same purchase?

A Yes, sir.

Q In June, 1901, a similar payment $12,500?

A Yes, sir.

Q That was on account of that same purchase of 130 inches of water was it?

A Yes, sir.

Q And notes to the amount of $25,000, also in June, 1901: That was on account of the same purchase?

A It was.

Q In 1903 it is stated here that there was expended on the Cucamonga tunnel, ledger account, folio 64, $371.25: Are you able by referring to that account to state what the expenditure was made for in 1903?

A No, the ledger account would simply show that it was charged up to the Cucamonga tunnel, and it might be for any kind of work in sinking shafts or in laying pipes or in the tunnel; there was a good deal of work done by the San Antonio Water Company and the Ontario Power Company in that tunnel, and when charges were made, the San Antonio Water Company usually assumed a portion of those expenses, in proporti nto the water that it owned there; if a part of that work was of a benefit to the San Antonio Water Company they paid for part of the work.

Q The next item is expended on Stowell Tunnel - what is the difference between the Cucamonga tunnel and the Stowell tunnel?

A It is the same thing; it just happened to get on the ledger under two names. But they both refer to the Judy tunnel.

Q 31069: Have you anything further to say about that than about the item I last asked you about?

A The explanation of the first item, also applied to that second item.

Mr Lesks informed the court here yesterday that he did

not remember any improvements made on the tunnel, could not recall any: were these two items that you speak of - one of them seems to cover from August, 1903 to November, 1905, $1069 - was that for improvements, or was it merely in care of the tunnel, preserving it?

A I believe that was an actual improvement on the tunnel, and I can repeat my statement that the reason I think so is that when I made the charge I was always very careful to eliminate any expense account from being charged up; that I always gave the benefit of the doubt, and if there was a doubt in my mind as to whether it was an expense or an improvement that should be charged to the tunnel, I gave the benefit of the doubt to the expense, and charged it to expense; so I am quite sure that there are no charges against that tunnel, but what is of a permanent character.

Q Will you produce those vouchers, and let us assist you in reaching a conclusion on that subject?

A Yes, sir.

Q The vouchers for those two items.

Now, in 1904, there is said to have been expended on the Stowell well, as per ledger account, folio 65, $451.70: Whado you call the Stowell well? Well number 14 at the head of the Madie tunnel?

A Number 14.

Q And from June 1902 to November, 1905, $4925 - -

A You have still got hold of that wrong exhibit; there was an error and my exhibit was all made over; that was not on the exhibit that was out in here.

Q Did the San Antonio Water Company pay that sum of money

not remember any improvements made on the tunnel, could not recall any; were there any items that you recall of - one of them seems to cover five months, 1908 to November, 1908, about - was that for improvements, or was it merely in case of the tunnel, proceeding by?

A. I believe that was an actual improvement on the tunnel, and I can recall a discussion that was reason I think so in that case. I made the charge; I was always very careful to eliminate any charges covered from being assumed by that I always gave the benefit of the work, and if there was a doubt in my mind as to whether it was an expense or an improvement that should be charged to the tunnel, I gave the benefit of the doubt to the company, and charged it to expense; so I can quite see that there may be items covered that period, but there is a considerable difference.

Q. Will you produce those vouchers, and let us consider or be considering a conclusion on that subject?

A. Yes, sir.

Q. The vouchers for those two items.

Now, in 1908, there is said to be some expense on the Stowell well, as per Larry account, folio 6, page 70: Tell us on all the Stowell well? Will number 14 at the head of the folio answer?

A. Number 14.

Q. And from June 1908 to December, 1908, which --

A. You may still not know of this even possibly; there was a mortgage on a certain lot all over; that was not on the Stowell and so on it here.

Q. Did the Ion Mining Company ever have any lease or

for those expenditures on that well, between 1902 and November, 1905, $4925?

A No, sir; they did not; because this item states that it was expended on the Stowell well from from June, 1902 to November 1905, Ontario Power Company Ledger, folio 120 and it was an Ontario Power Company account that has by mistake of the stenographer got into the San Antonio Water Company account, and I had that erased and changed; it appears on this statement as O P Company and should not have been there; that is not on the exhibit that was put in.

Q Then on this paper that I have before me, there are several other similar entries, which I suppose require the same explanation?

A The same explanation.

Q Then there was claimed to be expended on the Stowell tunnel in 1906 - -

A That is left out to on the exhibit that I put in.

I would like to correct some testimony that I gave in regard to that the other day.

Q All right; any correction you desire to make is in order.

A I stated in answer to some questions of Mr Britt the other day that that bulkhead was situated on the lands of the Ontario Power Company; I find that that is not so; that that bulkhead is situated on the 90-acre tract, on lands owned by the Cucamonga Water Company; I think I also stated that the San Antonio Water Company had paid the expense of that bulkhead, and while the San Antonio Water Company

did put it in and paid the bills, they were afterwards reimbursed for the entire amount, one-third of it having been paid by the Cucamonga Water Company, and two thirds of it having been paid by the Ontario Power Company.

Q And the amount paid by the Ontario Power Company was used for what? To pay a dividend that had not been theretofore paid on the stock held by the Ontario Power Company in the San Antonio Water Company?

A You will have to ask me something easy.

Q Or was it used to pay some of the debts of the Ontario Power Company which the San Antonio Water Company had guaranteed?

A Mr Britt, I have not been in the office of the San Antonio Water Company and the Ontario Power Company in any active capacity for the last three years, and I am unable to say what they did with that money.

Q Well, that disposes of the second sheet here, with the exception of those two items to which I referred of $371.25 and $1069.42; I merely want to know what those were and their dates; bring the vouchers for them if you please.

Now, the next sheet that you have produced here, purports to represent expenses by the Ontario Power Company on property west of the Cucamonga Red Hill, and the first item is $3107.37, on the pipe line from the Radio tunnel to the northeast corner of lot 548, ledger folio 50. Let me see the ledger entry please; that will facilitate matters somewhat. Was there any part of that expense incurred or paid by the Ontario Power Company, before its stock was taken over by the San Antonio Water Company?

A No, sir.

Q And all of these expenses which are mentioned in this sheet here as having been made on property west of the Quesnoncy Red Hill by the Ontario Power Company were laid out, after the stock of the Ontario Power Company had been purchased or acquired by the San Antonio Water Company in May, 1902?

A No, sir.

Q Well, I don't see any dates here; what part of it was paid by the Ontario Power Company before that time?

A There is an item of $107,508.80 for 362 acres of land; that land was purchased by the Ontario Power Company before the stock was transferred to the San Antonio Water Company; and I have used those figures in order to arrive at a basis, to find out what would be the proper charge on that piece of land.

Q Well, aside from that item of $107,508.80, is there any expenditure shown on that sheet, previous to the acquisition of the stock of the Ontario Power Company, by the San Antonio Water Company, in May, 1902?

A No, sir; there are not.

Q Now, this account or statement shows that there was expended on the Stowell well from June, 1902, to November, 1905, $4920; we would like to have a statement of the various purposes for which that expenditure was made: That is the large well at the head of the Eadie tunnel is it not?

A Yes, sir.

Q It refers to ledger account, folio 120.

A That account appears on the ledger of the Ontario Power

Company at page 120, and the expenditures run from June 23, 1902, to August, 1905.

A It is stated here to November, 1905 but that does not make any difference.

A November, 1905, the balance was brought down; that is the way that date came in there.

Q You have the vouchers representin that expenditure?

A Yes, sir; they are in the office of the company.

Q Very well; if you will produce those and let us examine them, we will try to do so out of court, or in such a way as to take up the least possible time.

Then from January 1903, to November, 1907, credit is claimed for an expenditure of $3221.75, on the Stowell tunnel - the same thing as the Radie tunnel?

A Yes, sir.

Q I suppose the ledger account won't show anything more than is shown on this sheet?

A Yes, sir - just the same as the other explanation.

Q Let us see the vouchers for that expense if you please.

Now, there is an item of $1438.00 for expense on the Stowell pumping plant from August 1903, to November, 1907: What do you call the Stowell pumping plant?

A There was a pump installed in the number 14 well.

Q Did that pump remain in place until November, 1907?

A That pump remains in placeuntil the present day.

Q And was it pumped from time to time during that period?

A No.

Q Never was pumped?

A Yes, sir.

Q When?

A In 1903; possibly the latter part - - By referring to the ledger I think that pumping plant was installed in 1903.

Q That is what it says here, August, 1903, is the first date in this item.

A I know there was pumping done there, but I have no recollection of how long it was continued.

Q Was there any pumping done in 1907?

A I think not.

Q Or in 1906?

A I think not; I think if there was any pumping done with that plant it did not extend probably over 12 months; my recollection is very indistinct about that, but I believe there has been no pumping done there for some time - a good while.

Q The next item, is expended on the tunnel stowell bulkhead as per O.P Ledger, $1257.55: Is that all the Ontario Power Company expended for the purposes of that bulkhead?

A Yes, sir.

Q What was the total cost of the bulkhead.

A That cost was two-thirds of it; the other third was paid by the Cucamonga Water Company.

Q This payment it appears was made in 1906?

A Yes, sir.

Q Now, this large item of $107,508, it is for lands purchased by the Ontario Power Company, 262 acre tract, and 100 acre tract: Can you point out where those tracts are on one of these maps? Exhibit D for instance?

A Yes, sir.

Q Well, where is it situated?

A It is situated east of the east line of the Colony of Ontario between 10th street and 16th street.

Q How is it situated with reference to the 90-acre tract of the Cucamonga Water Company?

A It is situated both north and west and south of the 90-acre tract of the Cucamonga Water Company.

Q How is it marked on this Map, Exhibit D?

A Well, it has a color there; I think it is green; and there is "Ontario Power Company" written on a portion of that piece of property.

Q Then there is the 100-acre parcel, described as lots 1, 2, 3, and 4 in section 8, and lot 4 in section 9, the 100-acre tract?

A The description that I have already given includes that piece of property; described separately it would be east of the dividing line between the Cucamonga and the Ontario Colony lands, and between 10th and 16th streets.

Q That is it is the south part of the lands which bear the inscription "Ontario Power Company on that map?

A Yes, sir.

Q Traversed by the county road, running across the Cucamonga Vineyard tract, and thence westerly to Upland?

A That is correct.

Q Do you know what was the cost of the 362-acre tract? You have it here all lumped together.

A No, I can't give you that cost separately, but the Ontario Power Company paid for that tract and a tract of the Cucamonga Irrigated Association lands, the sum of $137,500, and

they also purchased separately from that, 560 acres of land from the Ontario Land and Improvement Company, for which they paid $15,000 or $26.79 per acre; so that in arriving at the price of this present tract of land, as marked on the exhibit, I have deducted the other lands, which was included at the rate of $26.79 an acre, which left a balance as shown on that list.

Q You don't know what the 262 acre tract cost nor what the 100-acre tract cost?

A There is not anything on the books to show separately what they paid for that piece of property.

Q You don't know how they paid for it?

A I believe they paid for it in bonds.

Q From whom did the Ontario Power Company purchase that land?

A They purchased it from the California Land Improvement Company.

Q At what time?

A It appears on the record book of the minutes of the Ontario Power Company, on page 65, dated May 8, 1902, that the president of the company reported the purchase from the California Land Improvement Company the real estate under discussion - simply reported the purchase of it and the company passed a resolution ratifying or approving the purchase.

Q That was May 8, 1902?

A It was May 8, 1902, that the minutes of the company show the purchase to have been ratified, the president of the company having reported that he had purchased it.

But it does not say when.

Q That was just about the time that the stock of the Power Company was going to the San Antonio Water Company?

A It was just about that time; yes, sir.

Q And wasn't that purchase a matter which was discussed and canvassed with the San Antonio Water Company?

A That purchase referred to here was not discussed in any way with the San Antonio Water Company.

Q Let me see the entries there in the record concerning that purchase of land: You referred to a resolution found in this book of minutes of the proceedings of the Board of Directors of the Ontario Power Company, at page 91, in which it is stated that the President reported the purchase from the California Land Improvement Company of certain described real estate, situated in Ontario, and also certain property in the Rancho Cucamonga, estimated to contain 36 acres, and also lots 1, 2, 3, and 4, of section 8, and lot 4 in section 9, with certain reservations, estimated to contain in all 262 acres - that is what you refer to?

A Yes, sir.

Q And certain other property in the Cucamonga Homestead Association lands, for the purchase price of $122,500, par value of the bonds of that corporation?

A Yes, sir; that is what I referred to.

Q Where do you find any apportionment of the cost of that purchase, as between the various tracts of land?

A I don't find any apportionment whatever; I simply take a sale of land that the company purchased from the Ontario

Land and Improvement Company, 560 acres, for the sum of $15,000; that places a price on those lands that they purchased from the Ontario Land and Improvement Company; now the other lands referred to here - -

Q Are different lands?

A But in the same locality and of thesame value; so that I have used that as a basis, that $15,000, as a basis for the price of $26.78 per acre, as a basis to deduct from the total purchase price of the other three pieces.

Q Well, there are more than three pieces are there not? There isfirst the real property situated in Ontario, lots number 245, and numerous other lots, the last being 414: That is one body of land?

A Yes, sir.

Q Then comes some land in the Rancho Cucamonga estimated to contain 262 acres; then some lots in sections 8 and 9, township 1 south, range 7 west, which you told us here contained 100 acres, and then some lots, 1, 2, 3, and 4, and 7, 8, 9 and 10 Block 20, of the Cucamonga Homestead?

A Yes, sir; perhaps I can explain that so you will understand it: These lots here of the Ontario Colony lands, commencing at 245 and ending at 414, are identical lands with the purchase from the Ontario Land and Improvement Company, beginning at lot 166, and ending at lot 470.

Q But they are not identical are they?

A They are identical in this respect: That they are in the same place; lots that are surrounded one by the other. So that they are all of the same value; I did not wish to put these landsinto that statement as I thought it would not

be proper, so I took the price of the land that they bought from the Ontario Land and Improvement Company and applied it to this land, and deducted that from the 362-acre tract; that would represent the cost of the 362 acre tract on that basis; I simply did that to get a basis to find out what the value of that piece of land was.

Q You don't know what estimate the Ontario Power Company put on these lands in the Ontario Colony do you?

A I know that they put an estimate - -

Q Well, do you know?

A No, I don't know; except that it shows on this book that they put an estimate of $26.75 per acre on the lands they purchased from Frankish and Stamm; that is the price they put on that land.

Q Well, that is what they paid?

A That is what they paid; yes, sir.

Q You don't know what they thought the value was?

A No, I don't know what their thoughts were; I am not a mind reader.

Q Then your assumption that this big sum of $107,000 should be stacked up on the 265 acre tract, and the 100 acretract down there, is your deduction from the entries you see here in these books is it?

A Yes, sir; that is the way I arrived at what I thought the Ontario Power Company paid for that piece of land.

Q Didn't you observe that there was also included in this resolution to purchase certain lands for $122,500 in bonds, another tract, to-wit: lots 1, 2, 3, 4, 7, 8, 9, and 10, of the Cucamonga Homestead association lands?

A Yes, sir; I also observed that; and also deducted that at the same rate.

Q Those lands are quite far removed from the other lands mentioned?

A They join; one joins theother; there is just an imaginary line between.

Q Where are they situated? Can you point out on the map?

A Yes, sir.

Q Do so if you please.

A The lands on Exhibit D are in what is marked section 35, and are lands that are east of the Cucamonga wash, showing crossing this territory.

Q Crossing what territory?

A The territory under discussion; the line between the lands of the Ontario Land and Improvement Company and this Cucamonga Homestead Association is in that wash.

Q Are not those lands of the Cucamonga Homestead Association, designated as lots 1, 2, 3, 4, 7, 8, 9, 10, in Block 20, lands of a different class from those lands in the Ontario Colony further west?

A No; my recollection is they are entirely the same class of lands.

Q Similar formation are they?

A Yes, sir; one ten-acres might be different from another.

Q They are all wash lands?

A No, sir; not all wash lands.

Q All of the lands west of what you call the Cucamonga wash are wash lands aren't they?

A No, sir.

Q Aren't they covered with brush and boulders and sand and gravel?

A Yes, some of them are and some of them are not; I know good lands on the west; pieces of first-class good land on the west of that wash.

Q You don't know but what the Ontario Power Company regarded those lands up there along the wash, as the very best lands they were getting - wanted to put down some more Haskell wells and 16th street wells, for the purpose of obtaining water -How do you know that was not their main object for agreeing to pay $122,500 in bonds for that extensive land purchase?

A I don't know how they regarded it; I simply used that as a basis.

Q Have those bonds of the Ontario Power Company been paid?

A Some of themhave been paid and some not.

Q Have the bonds used for the purchase of that land been paid?

A I don't know.

Q In that same resolution to which you referred there is this provision: "That the said deed shall contain a covenant on the part of the party of the second part" - that is the Ontario Power Company?

A I presume it is; I don't know without looking at it.

Q "-that all water now flowing from said lands, or hereafter developed thereon shall be allowed to flow therefrom, without hindrance or obstruction in any manner, for a period of two years from date hereof, or until the title to said 130 inches of water abovereferred to is fully vested in said

San Antonio Water Company, and that no pumping shall be done thereon until such title is so vested".

You observe that part of the resolution?

A I don't know that I did observe it; but I have observed it at different times; I knew that it was there.

Q That was the 130 inches of water, as to which the San Antonio Water Company contracted with Stowell and the Cucamonga Fruit Land Company, wasn't it?

A Yes, sir.

Q And was that portion of the resolution put in there for the purpose of having that water flow to the San Antonio Water Company two years longer, so that the Statute of Limitations might run in its favor?

Mr McKinley: Objected to as calling for a conclusion of the witness and not proper cross examination.

The Court: Sustained.

Mr Britt: Exception.

Q Do you know what the purpose was for inserting that clause in that resolution?

Mr McKinley: Objected to as not cross examination, and as calling for the conclusion of the witness.

The Court: Overruled.

Mr McKinley: We have no objection to the witness answering that question, that is stating whether he knows.

A That clause was inserted in that resolution by the Ontario Power Company, by the board of directors of the Ontario Power Company, before the San Antonio Water Company was the possessor of the stock of the Ontario Power Company, and it would be very difficult for me to state

what those people that I didn't know anything about was putting that in the resolution for.

Q. Well, that was the question, whether you know?

A. I don't know; I have got an opinion but I don't know.

Mr Britt: We now move the Court to strike from the evidence that item of the tabulation or statement made of expenses by the Ontario Power Company on property west of Queensonge Red Hill, amounting to $107,300.00, and said to be the price of certain lands described in such statement, and to exclude the same from consideration as part of the evidence, on the ground that it appears that the estimated price is one wholly arbitrary on the part of the witness, and that it is founded only on deductions or inferences made by him from entries contained in a certain resolution in the minutes of the Board of Directors of the Ontario Power Company, of date May 6, 1902; and that there are no sufficient data in the resolution justifying this inference, and that it is expressive merely of a surmise of the witness, and does not arise to the dignity of evidence.

The Court: The motion is denied.

Mr Britt: Exception.

Mr Haskell, Q. In the course of doing business in the delivery of domestic water, the San Antonio Water Company found that it had no power to deliver water for domestic purposes, and collect a price therefor, did it not?

A. Not to my knowledge.

Q. Didn't you find that the powers of the company did not extend to that extent, that they had no rights to collect

water rates for domestic water?

A I have no knowledge that they do not have that right.

Q It was a mutual company was it not?

A They are called mutual companies.

Q And deliver water only to stockholders of the company - wasn't that true?

A They deliver water to stockholders of the company; at least they had a right to deliver water to the stockholders of the Company, and to the inhabitants of the City of Ontario, or Town of Ontario.

Q Well, as a matter of fact they never have done so and charged a price for it have they?

A Yes, sir.

Q When?

A Before the Town of Ontario was incorporated.

Q Wasn't it ever talked over among the officers of the San Antonio Water Company that the powers of the company were lacking in that particular?

A I think that there have been times in which a discussion or a talk amongst the board of directors would refer to that subject; but I do not think that they ever came to any conclusion that they did not have those powers; but I do think that they came to the conclusion that they did not think it was expedient.

Q And wasn't that very question being raised among the directors and officers of the San Antonio Water Company one of the inducements which led them to turn over the water that they have turned over to the Ontario Power Company, for the delivery of that water for domestic purposes?

A I think that the matter was discussed and that the board of directors did not think it was expedient or to the best interests of the company to deliver and charge for domestic water, and for that reason they wished to have the Ontario Power Company do that part of the business; I do not think that the board of directors of the San Antonio Water Company in discussing that matter ever came to the conclusion that they absolutely did not have that right.

Q But the question being raised was an inducement to turn the water over, as they have turned it over ~~fax~~ to the Ontario Power Company for the delivery of such domestic water for domestic purposes? Wasn't that one of the inducements?

A The San Antonio Water Company never turned any water over to the Ontario Power Company to have the Ontario Power Company deliver it to the people for domestic purposes.

Q But some of the San Antonio Water Company water has been turned over to them, and delivered through the San Antonio Water Company pipe lines to the Ontario Power Company, and the Ontario Power Company has delivered it and collected domestic rates has it not?

A The Ontario Power Company has always delivered its own water, and did not deliver any water that it got from the San Antonio Water Company.

Q They got this water for domestic purposes through the San Antonio Water Company pipe lines did they not?

A The Ontario Power Company has a right of way through the pipe system of the San Antonio Water Company, and the

Ontario Power Company took its own water and delivered it through the pipes of the San Antonio Water Company.

Q The zanjeros and officers of the San Antonio Water Company delivered this water to the Ontario Power Company at a certain point in the Ontario Colony lands - isn't that true?

A They delivered the Ontario Power Company's own water and did not deliver the water of the San Antonio Water Company.

Q The San Antonio Water Company did deliver water through its pipe lines to the Ontario Power Company, on the Ontario Colony lands for domestic purposes? Is that not true?

A I think you are getting back to the same thing; the only way I can answer that is to say that the San Antonio Water Company did not deliver any of its water to the Ontario Power Company.

Q But they delivered some water?

A They delivered the Ontario Power Company's own water.

Q And the San Antonio Water Company delivered the water didn't they?

A No, the Ontario Power Company delivered it.

Q They had their own zanjeros?

A No, they didn't have their own zanjeros.

Q And they didn't have anybody in charge of the pipe line?

Mr McKinley: Objected to as unintelligible.

The Court: Q As I understand you, your testimony is that this domestic water belonged to the Ontario Power Company?

A Yes, sir.

Q And that it went through the San Antonio Water Company's carrying system?

A Yes, sir.

Q And that the zanjero of the San Antonio Water Company simply turned the water which belonged to the Ontario Power Company over to the Ontario Power Company?

A Yes, sir.

Q And I suppose the Ontario Power Company delivered it to consumers and collected for it?

A Yes, sir.

Mr Haskell, Q It was the San Antonio Water Company zanjero that delivered that water to the Ontario Power Company?

A Yes, sir.

Q Is it not a fact that during all the negotiations and business transactions between the Ontario Power Company and the San Antonio Water Company, that there was a period of time, or was a time, when the Ontario Power Company assumed a certain amount of indebtedness of the San Antonio Water Company?

A The Ontario Power Company never assumed any indebtedness of the San Antonio Water Company.

Q Did the San Antonio Water Company assume any of the indebtedness of the Ontario Power Company at any time?

A The San Antonio Water Company never assumed any of the indebtedness of the Ontario Power Company; while the contracts between the companies at the time of the transfer has certain provisions in it, by which the San Antonio Water Company agrees to take a certain amount of power, and probably also water, but I know of power, anyway, and pay the Ontario Power Company for it, and if the gross or net income of the Ontario Power Company was not sufficient to pay

its bonded indebtedness and interest as it fell due, the San Antonio Water Company was to make up the difference; and all that appears of record in all of these long contracts.

Mr Haskell: There is an error appears in the record of yesterday at page 3685, line 20: Mr Britt makes this statement: "Plaintiffs under stand that the claim to the six inches of water from the Chaffeyville Springs made by the intervenor mentioned is part of the one half owned" and so forth; and the word "not" should appear after the word "is" and it should read "is not part", etc.

Mr Britt: It should be "not".

The Court: Do you consent that the word "not" be inserted there?

Mr Britt: Yes, sir.

Mr McKinley: The name appearing at line 14, page 3681, should be "Flaher" instead of "Slater".

The Court: That correction may be made.

Mr Britt, Q The Ontario Power Company never took any water from the Radio tunnel, or any well connected with the Radio tunnel, prior to the time when its stock was acquired by the San Antonio Water Company, did it?

A I don't know what the Ontario Power Company did do, before the San Antonio Water Company acquired its stock.

Q You do know that they had no pipe lines or appliances for the purpose of taking any such water? The 30 inch pipe line was constructed after the event that I mentioned?

A I don't see how I can account for the actions of the

board of directors of the Ontario Power Company before the San Antonio Water Company received its stock.

Q You are not asked to account for its actions, but I am asking you did the Ontario Power Company receive or take any water from the Cadie tunnel, before the time its stock was acquired by the San Antonio Water Company?

A Yes, sir.

Q Where?

A I don't know where they took it to; but it certainly came out of the tunnel.

Q I asked you if it took any water out of the tunnel? How did it take it?

A All I know is that the Ontario Power Company, previous to the acquisition of its stock by the San Antonio Water Company had water that was coming out of that tunnel from well number 14.

Q It didn't have any way of taking it away from the tunnel did it?

A I don't know; the water ran through the tunnel; that is all I know.

Q Into the wash?

A I don't know; they may have rented it to the Cucamonga people or other people; I don't know.

Q Isn't it a fact that you do know?

A It is a fact that I do not know.

Q Wasn't all of the water that came out of the tunnel up to that time taken by the San Antonio Water Company, and the Cucamonga Water Company, except what ran to waste? Don't you know that much?

A We were getting our 130 inches of water, but I don't think we got any water from the Ontario Power Company previous to getting the stock; I don't know what arrangements Mr Stowell and the rest of the people had; we were looking for the water that belonged to the 130 inches, and we had some water rented, and that water was being delivered in addition to the 130 inches.

Q You had some water rented to the Cucamonga Water Company?

A We had some water rented from Stowell; I don't know where Stowell got that water; we were getting our 130 inches, and we were also getting 40 inches of water rented from Mr Stowell; I don't know where Mr Stowell got that water.

Q And you received that into your pipe line didn't you?

A Yes, sir; that water came into the pipe lines of the San Antonio Water Company.

Q And the only pipe line connecting with the Eadie tunnel was that of the Cucamonga Water Company, wasn't it at that time? Previous to May 8, 1902?

A I think that the Domestic Water Company on the south side, or Mr Stowell and his associates that owned the 35 acre tract, had some kind of a connection there with the pressure pipe.

Q With the Eadie tunnel?

A I think that they connected with the Eadie tunnel; but I am not sure about that; they had a pipe line running from the 35-acre tract past the mouth of the Eadie tunnel and over to Ontario to deliver water to the Domestic Water

Company, and my recollect on is that Mr Stowell told me that he had made a connection with that pipe line from the Eadie tunnel; I may be mistaken but that is the impression that I have got, that that pressure pipe was connected with the Eadie tunnel.

Q It was not the Ontario Power Company's pipe line at any rate, was it?

A I think not.

RECROSS EXAMINATION.

Mr McKinley, Q Referring to the statement of expenses of the San Antonio Water Company on the 16th street wells, and particularly the item, five complete pumping plants installed on the 16th street lands, $12,130, I believe you informed Mr Britt that you were not able to fix the date of those being installed: Can you state whether they were installed before or since March 1, 1904? which was the time of the commencement of this action?

A I feel quite certain that they were all installed before March, 1904; the only doubt that I would have about that at all would be in one well, and that would be well number 1 on this exhibit; and while I think that was installed before that time, I would not like to say so, because it may not have been but that is a matter that I can trace up

Q Can you trace up the dates of all these installations?

A It might be possible to do so; it would be a little difficult; the last one that was put in would be in well number 1; it might be less difficult to trace the last well than it would be all the others.

Q Referring to the item, cost of water rights on the Rubio

lands, $14,834.57: State whether that represents the whole amount paid on the Rubiolands , or the difference between the amount paid and the amount received by sale of some of the lands? Which is it?

Mr Britt: Objected to as leading.

Mr McKinley: Question withdrawn.

Q What does the item of $14,834.57, cost of water right on Rubio land, represent?

A That represents a great many charges that were made against the property in the name of W. T. Leeke, extending from May, 1902 to October, 1906; and from the total of all those charges was deducted the amount that the company received for the 40 acres sold, and also the amount they received from the sale of oranges; and one sum being deducted from the other leaves the cost of those water rights as the sum of $14,834.57. Now, Mr Britt asked me about a certain item of $13,714.97; that is only the first item which is on this ledger, and I had no opportunity to explain the balance, and there are dozens of them; I suggested that a detailed statement could be made out, and if such a statement was made out I think Mr Britt and everybody else would understand it better; but that was the actual cost to the San Antonio Water Company of the water rights and the remaining lands that were transferred by W. T. Leeke to the San Antonio Water Company,- the net cost to the Water Company.

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W. T. LEEKE

W. T. Leeke, previously sworn, being recalled for further cross examination, testified as follows:

CROSS EXAMINATION.

Mr Britt, Q You were requested yesterday, I think it was to produce any further vouchers, books or accounts, showing expenditures for pumping purposes in 1898 on that well number 3: Have you been able to find anything further?

A Wasn't your request for 1899?

Q Well, it may have been for 1899 or perhaps both years; have you been able to find anything further?

A Our office force last night were so extremely busy in looking up the matters that were entrusted to Mr Shepherd, that they hadn't time to look into this matter; it is their intention to look into this matter tonight.

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F. X. LEEK

X. X. Leek, previously sworn, being recalled for further cross-examination, testified as follows:

CROSS EXAMINATION.

Mr Brill, Q. You were requested yesterday, I think it was to produce any further vouchers, books or accounts, showing expenditures for purchase purposes in 1890 on that coal number 6; have you been able to find anything further?

A. Haven't your request for that?

Q. Well, it may have been for 1890 or perhaps both years; have you been able to find anything further?

A. Our office force last night were so extremely busy in looking up the matters that were subpoenaed to be there-hand, that they didn't time to look into this matter; it is their intention to look into this matter tonight.

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F. C. FINKLE

F. C. Finkle, a witness previously sworn, being recalled by defendants, testified as follows:

DIRECT EXAMINATION

Mr McKinley, Q What is your business or profession?

A I am a consulting engineer in civil and hydraulic work.

Q How long have you been engaged in that work?

Mr Britt: The qualifications of the witness in that respect are admitted.

Mr Haskell: Yes, we will admit that.

Mr McKinley: Will you admit his qualifications as to the profession stated; and also that he is a geologist?

Mr Haskell: We will admit that he is qualified to give an opinion.

The Court: As a geologist?

Mr Haskell: Yes, sir.

Mr Britt: I am not prepared to make that admission. I admit that he is qualified to state opinions as a hydraulic engineer or civil engineer, but I do not admit the accomplishment of a geologist sufficient to express an opinion as to geological matters.

Mr McKinley: Well, we will make that proof then.

Mr McKinley, Q Will you state to us the learning and experience you have had in that subject, and the studies you have made in geology?

A First, when I was in college, I studied a full course in geology; and after leaving college have always had in my library, and referred to and used, all standard works on geology, such as that by Dana, LeConte, Chamberlain and

Saulsbury, Geike, Lyell, and others; and in the practice of my profession as a hydraulic engineer and otherwise, in other lines, I have frequently been called upon to examine the geology of various sections of this country and have made reports on it, and have given opinions in regard to it. The matters in which I have been called in that way were for the purpose of classifying the geological formation in a good many sections of this state, to determine whether they belonged to the periods in which deposits of petroleum were produced; and further in examinations for the purpose of determining the circulation of underground water through various formations, classifying them as to their geological age, and the strike, dip, and other conditions which affect the flow of water. In addition to this, I have been called as an expert to testify before the Interior Department and in the Courts on numerous occasions, relating to questions affecting the occurrence of oil in geological formations, and also in relation to the existence and behavior of underground water in various deposits.

Q How frequently have you made such investigations and given such testimony?

A During the past twenty years I have a great many times each year been called upon and have made such investigations and given such opinions, in regard to questions arising both from the development of petroleum and water.

Q When did you complete your college course in which you studied geology?

A In the year 1887.

Q Did you take up the profession of hydraulic engineer

at once upon graduating?

A At once; yes, sir.

Q When did you take up the study of geology in connection with that?

A The first large piece of work that I had as a hydraulic engineer was the construction of a canal for conducting irrigating water from the Santa Ana River near Colton to West Riverside, to the Jurupa Rancho; that water was developed from underground sources, at a point south of the Santa Ana River where the two railroad bridges cross the river, between here and Riverside; in order to determine the amount of development there, I studied the geology carefully and applied my knowledge to the conditions; also, during the construction of that canal, which was begun in the year 1887, and completed in the year 1889, I also constructed two tunnels, one of which was four thousand feet in length, and the other two thousand feet in length, as a part of this canal; and I made further application of my knowledge and studies as a geologist in handling the work on those tunnels. And, beginning shortly after that time, and continuing down to the present time, covering a period of about 20 years, I have been following that same line of work, and have every year been called upon several times to report on questions of geology.

Q When did you first become acquainted with the district at the Red Hill, and surrounding the Red Hill, at Cucamonga?

A In a very general way during the year 1887; but in the year 1897 I made my first visit to that vicinity for the purpose of investigating matters relating to water.

Q Now, describe fully, without going fully into the details of those investigations, but describe fully the amount of your investigation, and the opportunity you had for the observing of that region.

A My first investigation in 1897 related to the canyon water only, and consisted of a visit to the canyon and the examination of a tunnel.

Q Which canyon?

A The Cucamonga Canyon, and an examination of a tunnel in the canyon belonging to the Lemoore Water Company, and an examination of their system in general; and after that, making some calculations on the subject of run-off from the canyon, and reporting on the whole matter.

Q What year was that?

A That was in the year 1897. From that time for over a year - this was late in the year 1897 as I recollect it now- - from that time for over a year I had no occasion to visit this section; but in the beginning of the year 1899, I was requested by the San Antonio Water Company to make a careful and thorough examination of the Red Hill district, and this was for the purpose of advising them in regard to water supplies which they were then negotiating for the acquisition of, and which they later did acquire from the Cucamonga Fruit Land Company, and from Mr N. A. Stowell; these examinations covered a period beginning in January of that year, and extending into the month of April, before the contract was entered into and 130 inches of water purchased from the Cucamonga Fruit Land Company and from Mr Stowell.

Q How full an investigation did you make at that time, and describe generally the nature of your investigations?

A At that time I made a full investigation of the questions of water supply from artesian sources, with some incidental references to the other water supplies which are in the more recent gravels; and the examination was made by spending a number of days on the ground, alone at first, and making a report; after which, the company desiring to have confirmation or further authority for the position which they were advised to take in my report, called in Mr G.C. Newman of Riverside, a hydraulic engineer, and I again went over the matter on the ground with Mr Newman, and we made a joint report to the company covering the same matter. The examination made by us at that time, as I said, related principally to artesian water sources, as the water which was then offered by Mr Stovell was from artesian wells on the west side of the so-called Red Hill.

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Here the Court takes a recess until tomorrow, April 1, 1909, at ten o'clock a.m.

J. W. McKinley

IN THE

# Superior Court

OF THE

## County of San Bernardino

State of California

| | |
|---|---|
| Cucamonga Vineyard Co et al<br>Plaintiff<br>vs.<br>San Antonio Water Co et al<br>Defendant | April 2, 1909<br><br>Vol. 43 |

Index.



I. BENJAMIN, Official Reporter

Thursday, April 1, 1909. Forty-Third Day.

Mr. McKinley: I ask leave to file amendment to the answer of the San Antonio Water Company and the Ontario Power Company to the amended complaint in intervention.

The Court: Any objection?

Mr. Haskell: No objection.

The Court: Leave will be granted

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F. C. FINKLE.

(Direct Examination, resumed.)

Mr. McKinley: Q When we adjourned you were describing your experience in the vicinity of the Red Hill. Will you proceed?

A The last examination I referred to was that preceding the purchase of the 130 inches by the San Antonio Water Company from the Cucamonga Fruit Land Company and Stowell. After that purchase was completed by the contract I was called upon in the month of August, 1899, to examine the water developed and make measurements of it for the purpose of determining how much water was ready to be delivered. I made this examination assisted by Mr. L. T. Wright, and reported to the company in accordance with what we found. After that a suit was brought against the San Antonio Water Company and the Cucamonga Fruit Land Company by McPherson and others, and I was employed by the San Antonio Water Company to conduct investigations and examinations of this territory, in connection with other engineers, of whom Mr. Trask was one and Mr. G. O. Newman of Riverside, now of Los Angeles, another, and Mr. J. B. Lippincott of Los

Angeles the third engineer. Jointly we conducted certain examinations of this neighborhood relating to the hydrographic conditions and the geology. This extended over a period of many months, beginning about November, 1899, and terminating with the completion of the trial of the McPherson case in February, 1900. The examination at that time was very comprehensive, including measurements of all the water sources, examination of the wells and material taken from the wells in excavating them, and careful examinations of the geological conditions of the Red Hill in which the waters had been developed. From the completion of the McPherson case up to the early part of 1904 I paid no further attention to this neighborhood and did not visit it; but I was employed by the San Antonio Water Company in the early part of 1904 to make further investigations in relation to the developments north of Base Line, as well as those which had formerly been examined on previous occasions. Those examinations have extended from the early part of May, 1904, up to the present time. The only year in which I have not made visits and examinations has been the year 1906, when I didn't visit the neighborhood of the Red Hills--that is, I mean, since 1904 to the present time that 1906 is the only year in which I haven't gone over the ground and made investigations.

Q You have measurements of water taken in that vicinity?

A I have.

Q Will you produce them and state fully in regard to them?

A You are referring to measurements in the Red Hill vicinity at present I assume?

Q Yes, sir.

A The first measurement ever made by me in the vicinity of the Red Hills itself, not referring to the one measurement I made in Cucamonga Canyon prior to that time and which I will refer to later, was made on the 14th of January, 1899. At that time I made a measurement of the flow at the outlet or portal of the Andy Tunnel and found 95.65 inches flowing from the tunnel. The measurement made that day was made on a bench mark already in place, placed there by Mr. Stowell; and as I had no level with me, I returned the following day -- January 15-- for the purpose of testing this bench mark, and I again measured it on the 15th and found it to be 96.4 inches.

Q What were the conditions at that time as to the rainy season having commenced and storms and so on?

A That was a dry year and people were irrigating all winter. There were some rains that winter, but they were very light, and I don't think they stopped irrigating all that winter.

On the 15th of March, when I was employed to examine the water sources in detail for the purpose of the purchase of 100 inches from the Cucamonga Fruit Land Company and 30 inches from H. H. Stowell, I made the following measurements:

East branch of West Cienega, which has been known as Cienega D in the McPherson trial, and also referred to in this trial in the same way, 4.88 inches;

West branch of the same Cienega, 10.61 inches;

And Tunnel no. 4 to well no.5 as it was known at that time,

which was a tunnel driven on the 90-acre tract to one of the artesian wells in that cienega, flowed 7.89 inches;

Then the Creek Division Box or the Cucamonga Springs on the east side flowed 109.05 inches;

The Y Tunnel Division Box, which included the Y Tunnel water and the water from certain cienegas which were still discharging slightly, was 104.4 inches, of which the Y Tunnel itself supplied 72.45 inches.

Then the Lone Star Development, which is the original Lone Star Tunnel, was discharging 35.6 inches.

In order to determine the amount of water coming from the 90-acre tract and outside of that tract, I made a measurement of the flow on to the 90-acre tract in the Lady Tunnel, which is at the same point Mr. Traek has referred to as Weir B in the Lady Tunnel, measuring all the water discharged from the outside lands on to the 90-acre trat, and at that time there was 77.55 inches flowing on to the 90-acre tract.

Q The water in the east branch of the tunnel from well no. 4 which was one of the Stowell wells that had been connected with the Lady Tunnel at the floor level at that time, and outside of the 90-acre tract, was discharging 35.6 inches. This was not the 96-well or the Stowell well, but an older well which was connected at the tunnel level. the Stowell well was being siphoned at that time. There was a branch running east to the Lady Tunnel from the well which had been cut--that was well no. 4 in the McPherson case. It bears a different number in this case. But it had been connected with the tunnel on the floor level.

This 35.6 inches from that well was part of the 77,56 inches which I measured flowing on to the 90-acre tract.

At the mouth of the Lady Tunnel, including all the waters from the 90-acre tract as well as from lands outside, the flow was 91.2 inches, excluding the water which was diverted to Ontario. There was an 8-inch pipe line drawing 30 inches of water delivered by Stowell to Ontario, and this was in addition to the amount taken in that pipe line.

Then we visited the 16th Street well of the San Antonio Water Company which is now well no. 3 in this case, and we measured the amount that was then being pumped from that well, 14.4 inches, and I have this note: "Well about 86 feet deep to water; about 10 or 12 horsepower used and 20 gallons distillate in 24 hours; engine working at half capacity; out of repair." In connection with that, I wish to state that the engine was out of order on account of the sparking device not working properly; as shown by the marks on the weir box it was pumping about one-half its usual quantity.

Mr. Britt: I ask that the statement as to its pumping one-half of the usual quantity be stricken out as merely expressive of the opinion of the witness and not responsive to the present question.

The Court: Stricken out.

Q. State whether you could determine or form an opinion from the condition of the weir box as to the amount which had previously been pumped from that well.

A. I could.

Q. State what your opinion is as to that.

Mr. Britt: Objected to inasmuch as it is not a subject for expert testimony at all. There must be better evidence available; and in the second place, it does not appear what the indications are upon which to base the proposed expression of opinion.

The Court: I think we are entitled to know that last.

Q Describe the appearance of the weir box there.

A There was a mark on the weir box which had been made by the long flow of the water to a certain height in the weir.

Mr. Britt: That is a matter which the witness can scarcely know; certainly, it is not expert opinion testimony.

Mr. McKinley: I asked for a description of it and he is giving a description of it.

Mr Britt: He is intermingling opinions with his descriptions.

Mr. Haskell; And objected to further, as to any opinion , in this: that the witness has stated how the marks on the weir box appeared and that any person is as competent to judge as another as to what caused that--

The Court: That objection is in practically , that it is not a matter of expert opinion. I think the objection had better be sustained.

Mr. McKinley: The answer describes the weir. The objection has perhaps led your Honor to think there is more in the answer than there is

The Court: I was not referring so much to this particular answer, but to the ultimate matter of inquiry.

Mr. McKinley: But this answer describes merely the marks on

the box. It improper for you to go into that and tell how it compared with the marks and what the marks were, and then let us draw out inferences as to what the probabilities were.

(Question and answer read.)

The Court: What do you mean? The discoloration?

A The box had been painted with asphaltum and the water standing to a certain level in that box had left a white deposit, evidently from the water pumped from the well, and above these marks the asphaltum was still black; below it it was a sort of a grayish tint.

Mr. Britt: We ask that the statement of the witness that the water flowing in the box had left a white deposit be stricken out as an expression of his opinion merely on a question that is not subject to the evidence.

The Court: Q Would the same thing have resulted with the water standing in the box?

A Yes; the same thing would have resulted if the water had stood to the same height.

Q Why do you say "flowing"?

A Because the outlet to the weir would discharge water up to the point of the lip of the weir.

Q Provided it was open?

A Provided it is open.

The Court: That is the trouble with the whole inquiry. I think you are wasting time, Judge McKinley. I don't think there is any difficulty about getting better evidence.

Mr. McKinley: What portion is stricken out?

The Court: I haven't stricken out any yet.

Mr. McKinley: We are entitled to the marks on the weir box.
The Court: Yes, for what it is worth. You can have it in for what it is worth.
Mr. McKinley: I am willing that the statement that the water was flowing should be stricken out, leaving simply the statement of the condition of the weir box.
Q Have you finished your measurements?
A Those are all the measurements made on the 15th of March, 1899.
Q What is the total amount of water flowing on to the 90-acre tract as shown by those measurements?
A On to the 90-acre tract?
Q Yes, sir.
A 77.55 inches from lands outside of the 90-acre tract.
Q Where was the water coming out of the Lady tunnel going to ? At what different places and points?
Q You mean on the 15th of March or in January?
Q This last measurement, the 77.55 belongs to the 15th of March?
A Yes; that belongs to the 15th of March. At that time the water from the Lady Tunnel was going 30 inches to Ontario. That was estimated but not measured, and the balance of it was taken to Cucamonga Water Company's pipe and to the South side Ontario xxxx and some lands which Mr. Stewell was irrigating in section 16. I also have a note of the way the water was going on the 15th of January.
Q Dtate in regard to that.
A The measurement was 96.4; it was made on the 15th of January, 1899, and I have this note: Water is divided near-

ly equal between Ontario and Cucamonga, a li le more to the former.

Q Have you a measurement at that time of what amount was going on to the 90-acre tract?

A I have not; that was only a measurement at the mouth of the tunnel.

Q You may proceed and give your next measurement.

A The next measurement made by me was made with Mr. Rowan on April 1st, 1899. I then measured the water in the Early tunnel which flowed from outside lands on to Cucamonga Fruit Land Company--No, from outside lands of the Cucamonga Fruit Land Company to the 90-acre tract, at the place known as Weir D in the later part of this case. And there was then flowing 73.45 inches over that weir on to the 90-acre tract. At the mouth of the tunnel there was 103.73 inches. And the difference between these two measurements, or 29.92 inches, was the product of the 90-acre tract.

Q Where was the water coming out of the tunnel going to?

A The 8-inch pipe line to Ontario was running full at that time, and the capacity of the pipe I have calculated--I didn't make a measurement, but from the grade and size I calculated the capacity, and the only way I could determine the quantity going to Ontario would be to refer to that calculation.

I also made a measurement on the Cucamonga Springs at the Creek Division Box and found 107.25 inches there.

I also made a measurement on the 10xx-inch or Y Tunnel Division Box and found 98.2 inches, of which 72.6 was from the Y Tunnel and the remainder from Cienegas.

1 Those were all the measurements on April 1st. Then I made
2 no further measurements until the 25th of August, 1899, when
3 Mr. Wright and I together made the following measurements:
4 The first measurement is at the Stowell box on the east
5 side of Ontario Colony Lands, which was the box at the end
6 of the 22-inch cement pipe line constructed by Mr. Stowell
7 previous to that time for delivering the water covered by
8 the contract between himself and the Cucamonga Fruit Land
9 Company to the San Antonio Water Company. And we found
10 at that box 124.55 inches being delivered to Ontario.
11 We also made a measurement at the old box at the end of
12 the Kady Tunnel to determine the amount of water going to
13 Cucamonga Water Company and we found 41.64 inches taken by
14 the Cucamonga Water Company.
15 Then we made a measurement in the weir in the tunnel from
16 well no. 5, which is the tunnel Mr. Stowell used to call
17 Tunnel No. 1 on the west side-- I am not sure that he called
18 it that, either. I think he called the Y Tunnel no. 1. But
19 it was a tunnel to tap his well running in towards the Kady
20 Tunnel. We found at that time 20.31 inches which was pump-
21 ed from the well by an air compresser.
22 From the other well on the 90-acre tract-- there were then
23 two wells on the 90-acre tract-- from the other well on
24 the 90-acre tract there was pumped 13.02 inches which we
25 measured over a separate weir, making a total quantity of
26 33.33 inches as pumped from those two wells.
27 Q When you speak of the 90-acre tract you mean the tract
28 on which the Kady Tunnel is situated?
29 A At the upper end of the Cucamonga Water Company. I don't

refer to the other 90-acre tract on the Base Line.

Then we measured the water in the north branch of the West Cienega or Cienega B, which included the pumped water from the last well mentioned, and found there 15.45 inches, which would give the cienega a discharge naturally of 2.41 inches.

We also measured the East Branch of the same cienega and found that it was flowing .9 of an inch.

Also measured the flow of the Cucamonga Springs at the Creek Division Box and found 91.55 inches.

We also measured the flow in the Lady Tunnel on the line between the 90-acre tract and the lands to the north and west, being the water which was flowing on to the 90-acre tract from the outside sources, and found 92.4 inches.

Mr. Britt: Q Is that the Weir B?

A The same as now called Weir B. That was a different weir at that time, but at the same location.

And in testifying to these measurements, I wish to state that I am using the miners inch under a four-inch pressure, equal to .02 of a cubic foot per second. Whenever I speak of an inch of water that is what I mean.

I also measured the weir in the tunnel from Well no. 5, b e-ing the artesian well on the 90-acre tract of the Cucamonga Water Company, and found 2.66 inches in the afternoon after the air compressor had been stopped. In the morning that same tunnel was measured and gave 20.31 inches. After stopping the pump the well flowed 2.66 inches.

And also, in the afternoon, I measured the north branch of the west cienega and found 2.66 inches out of that. That

is the Cienega D on the west side.

Measured the water at the mouth of the Lady Tunnel again in the afternoon after the pumps had been stopped, so that the quantity was lessened, and found 109.5 inches, gravity water.

After the pumps had been stopped I also measured the water delivered to Ontario through the same 22-inch pipe to determine the amount of gravity water delivered, and found that to be 109.5 inches. I will state here that the pumps were stopped for the purpose of permitting us to measure the gravity water as distinguished from that being pumped from the two wells.

I measured a weir on the 10th Street Pipe Division Box in the Y tunnel and cienegas on the east side and found 87.15 inches. There was no separate measurement made of the Y Tunnel at that time.

The next series of measurements made by me was on the 13th of December, 1899; the first measurement on that date was the flow from the Lady Tunnel going to the San Antonio Water Company being measured at the Stowell box situated on the east line of the Ontario Colony Land, and I found that the San Antonio Water Company was then receiving 127.35 inches of water.

Also measured the east branch of the West Cienega on the west side of the Red Hill, which has been referred to as Cienega D, and found 1.87 inches of water.

Measured the west branch of the West Cienega (that is, the same cienega, only a different branch of it) and found 3.22 inches of water.

Measured the flow from what I have referred to as Well No. 5 here, on the 90-acre tract, which was the first well put down on the 90-acre tract in '87 and flowing into the tunnel, and found that that was discharging 1.76 inches of water.

Also measured the water which the Cucamonga Water Company was taking from the Lady Tunnel and found that they were diverting 20.55 inches of water from the Lady Tunnel on that date.

Also measured the Cucamonga Springs or Creek Division Box, as it was called, and found 106.55 inches.

Also measured the Division Box from the Y Tunnel end of the ~~xxxxxxxxxx~~ 16-inch pipe on the east side, and found 81.3 inches, of which 58.1 inches was coming from the Y Tunnel and the remainder from cienegas and developments outside.

Measured the Lone Star Tunnel which was all gravity flow at that time,-- the original No. 1 Lone Star Tunnel,-- and found 20.5 inches.

Those are all of my measurements of water on the date given, & the other data being in relation to the wells and the measurement s of depth of water in wells.

The next series of measurements made by me were on the 3rd, 4th and 5th of February, 1900. At that time I was accompanied by F. L. Trask and Mr. G. O. Newman.

Q Were those put in by Mr. Trask?

A I am not sure whether they were or not.

Q Proceed and give them to us.

The first measurement on the 3rd of February, 1900, was of the wells on the Lone Star tract that were being pumped with compressed air. The amount then obtained from the Lone Star Tunnel which is the No. 1 Lone Star Tunnel was 61.15 inches; and from a note I have here I see Mr. George Chaffey was also with us on that day. Then we stopped the pumps and measured the Lone Star Tunnel water to see how much was flowing by gravity from the Lone Star Tunnel and well, and found 17.6 inches. The difference between that and the former measurement being what was added by the pumping of the well. Those were the only measurements of water flowing or pumped on the 3rd of February, 1900. But on the 4th I find that we made a measurement of water from the east branch of the West Cienega or Cienega D which was then flowing 1.21 inches, and also the west branch of the same cienega which was flowing 2.7 inches.

Also measured the flow from the artesian well on the 90-acre tract to which I have previously referred, flowing into the tunnel, and found 1.45 inches.

Then I measured the water from the Cucamonga Springs over the Creek Division Box and found 97.06 inches.

Also measured the flow from the Y Tunnel Division Box, 77.22 inches, of which 54.88 inches was coming from the Y Tunnel and the remainder from springs and developments outside.

At the mouth of the Kady Tunnel on that same day, measured 126.04 inches; and I have a note which states "all water in (meaning in the tunnel, of course) but siphon in Well No. 7 is not working." Evidently the siphon was air-logged

and not discharging on that date.

On the 5th of February, 1900, a measurement of water was made in Cucamonga Canyon to give the diversion of the Loamosa Water Company, and this measurement was 100.31 inches. This was the total flow of the surface stream and the tunnel in the mouth of the canyon, and it was all diverted to the Loamosa pipe line.

In this connection I also wish to give the former measurement which I made in the same tunnel and to which I have referred already: That was made August 20, 1897, and was 126.4 inches, which was diverted from the tunnel and the flowing stream into the Loamosa pipe-line.

Q You say it was diverted: Is that all there was?

A That is all there was; they were diverting it all

The next measurements which I have made were on the 11th of February, 1900, and at that time I was accompanied by Mr. J. H. Lippincott and F. E. Trask. The first measurement shown is that of the Haskell well which was then being pumped and was pumping 122.6 inches. The water was taken through a pipe line to Ontario.

I also made a measurement in tunnel no. 2, which is the Lady Tunnel of the Cucamonga Fruit Land Company on the west line of the 90-acre tract, being water which would flow on to the 90-acre tract over what has been called Weir B in this case, and found 76.15 inches.

Measured the water coming from the Lady Tunnel to the Cucamonga Water Company, and found 17.86 inches.

Made a measurement in the Stowell box on the east side of the Ontario Colony Lands, which was at the end of the 22-

inch cement pipe line from the Lady Tunnel, and found 115.5 inches, of which the 76.15 inches was a part and thebalance was pumped water and the water collected from the various springs north of the 90-acre tract.

Q Explain specifically just what that was:

A The territory lying to the north of the 90-acre tract w which has been referred to sometimes as the 53-acre tract, had on it what is known as the Picnic Stream and some cien e-gas; and then there was a stream and spring called the Tiburcio Springs near the site of the old Park Hotel; and Mr. Stowell was pumping with an air compressor from some wells on the 90-acre tract, so that the difference between 76.15 inches, which was gravity water flowing from the lands tributary to the Lady Tunnel outside of the 90-acre tract, and the 115.5 inches which was received by the Ontario or San Antonio Water Company, would be the total of these sources that I have referred to.

Then we made a measurement of the flow from the artesian well called no. 5 on the 90-acre tract which flowed into the tunnel, and found .66 inches.

Q You have referred to that a number of times, Mr. Finkle. Whish well is it?

A It is a well which is marked on Plaintiffs' Exhibit 1 as Well No. 1, 1887, elevation 1407, being in Cienega D or the West Cienega.

I also made a measurement of the Picnic Stream, which was a small stream running into a cement box at what is called Reservoir No. 5 at that time, and found .55 inches of water.

Mr. Britt: The last measurement was what,

A .66 .

Q Was that well being pumped?

A No, sir; not that one; the other was being pumped, but thisone was flowing naturally.

Mr. McKinley: Q Where isthat Picnic Stream?

A That is now dry; but it was located at the north of the 90-acre tract. It was a stream coming out at that point and coming down towards the point marked granite monument in the angle of the 90-acre tract and the other tract to the left of it.

We also measured that day the total flowfrom the Lady Tunnel at the mouth of the tunnel to check the other measurements which were given, one giving the total to the San Antonio Water Company and the other the total to the Cucamonga Water Company, and we found the total discharge of the Lady Tunnel 132.8 inches.

Mr. Britt: Did that include the water from the Picnic Springs?

A No; that didn't. The Picnic Springs were taken through a small steel pipeline which ran by the Park Hotel; and when it was not used on section 16, on Mr. Stowell's land, he delivered it to the San Antonio Water Company.

The next measurements made by me were on the 17th of February, 1900. at that time Mr. Frank and Mr. Lippincott were also with me. We measured the Cucamonga Springs at the Creek Division Box and found 90.3 inches.

Measured the Y Tunnel Division Box and found 72.9 inches, of which 53.6 inches came from the Y Tunnel, the reminder coming from ciénegas and springs in that vicinity.

Q Not, however, including the springs below?

A No; not including the Creek Division Box. But in those days, as there is now, there were two measurment places on the east side, one the Y Tunnel Division Box and the other the Creek Division Box. The Y Tunnel included the water from the Y Tunnel plus the inflow, such as the China Cienega and other cienegas in that neighborhood which did not flow through the Creek Division Box.

Also measured the flow from the Lone Star Tunnel referred to here as Lone Star Tunnel, which is the upper tunnel, and found 16.53 inches.

Measured the water pumped from the Haskell well by the San Antonio Water Company, 109.45 inches.

Those are all the measurements on the 17th of February, except on water levels in the wells. I made no further measurements after that until May 7, 1904, and on that date I measured the water from the Creek Division Box from the Cucamonga Springs, and found 15.86 inches.

Also measured the flow from the Lady Tunnel at the mouth of the Tunnel and found 104.25 inches. That was the water going to Ontario only, as the Cucamonga Water Company's box was locked and we couldn't measure it.

Also measured the Weir B in the Lady Tunnel which gives all the water developed outside of the 90-acre tract, and found 196.6 inches flowing on to the 90-acre tract. Comparing this with the previous measurement, the San Antonio Water Company was drawing 12.35 inches less than its share of the water on that day.

Those were all the measurements of water on that date.

I couldn't measure the Lone Star because it was locked. I have a note in the book showing that there was water running in the box in the afternoon, but it was locked and we couldn't measure it.

My next measurements were on July 29, 1905. The first measurement was the mouth of the Eady Tunnel, giving water taken through the San Antonio Water Company's system, 140.7 inches.

The weir of the Cucamonga Water Company wasn't locked on that day and I made a measurement. They were taking from the Eady Tunnel 100.35 inches.

Also measured Weir B in the Eady Tunnel, which is at the west line of the 90-acre tract, and found 154.4 inches, showing that the San Antonio Water Company was receiving less than the product of the lands outside of the 90-acre tract by 16.7 inches, which was taken by the Cucamonga Water Company.

Also on that date I measured the Cucamonga Springs over the Division Box called the Creek Division Box, and found 7.4 inches. I couldn't measure any of the Cucamonga Water Company's supplies on the east side because they were locked up.

The next date when I made measurements there was September 19, 1907; the first measurement on that date was made at Box C which measured all the water from the 16th Street wells including the Haskell well-- No, the note here states that the sluice gate under the weir was open and I couldn't measure. There was no measurement taken there.

Weir at Well No. 1, San Antonio Water Company on 15th Street was measured, at weir no. 1 in the present system of numbering. 57.8 inches pumped from that well.

At well no. 4, 71.8 inches. 2 and 3 were not pumping.

At the mouth of the Lady Tunnel the Cucamonga Water Company was receiving 99.9 inches and the San Antonio Water Company was receiving 104.6 inches. That is, the San Antonio Water Company and the Ontario Power Company together. That was for both companies, the San Antonio Water Company and the Ontario Power Company.

Then I measured the Cucamonga Springs, being the Creek Division Box or what is known as weir no. 8, and found 31.58 inches.

Measured the discharge from well no. 8, being Haskell Well No. 2, and found 59.9 inches pumped from that well.

Measured Weir No. 7, Cucamonga Water Company, from the 35-acre tract tunnel or lower Lone Star tunnel, and found 40.37 inches.

Measured Well K, Cucamonga Water Company, which was pumping 26.05 inches.

Went to Sunset Water Company's plant and measured what it was pumping, and found 47.42 inches.

Also went to the Upland Water Company's plant, being the Sourwine well, and measured 34.60 inches which they were pumping.

Those were all the measurements made on the 19th of September, 1907.

My next visit was on the 9th of January, 1908. On that

date I measured the water taken from the Andy Tunnel by the Cucamonga Water Company which amounted to 75.95 inches.

Also the water taken by the Ontario Power Company and the San Antonio Water Company, 154.00 inches.

Measured the flow of the Cucamonga Springs over Weir No.8, 31.1 inches. And I have a note that there were about 2 inches leaking through the dam.

Measured No. 7, Cucamonga Water Company, which was discharging 70.05 inches from the 35-acre tract.

Mr. Britt: That is the lower tunnel?

A This is the lower tunnel. 70.05. Then I have a note that Well K and the sunset plant were not being operated.

Then I measured weir no. 5 of the Cucamonga Water Company, which is in the upper Lone Star Tunnel.

Mr. Britt: Was there any pumping out of the Lone Star Tunnel?

A They were pumping at the upper tunnel and I am just about to give that measurement. 34.25 inches. That is all pumped water from those wells at the head of the Lone Star Tunnel.

My next visit was February 2, 1908. At that time I measured weir no . 5 or the Lone Star Tunnel weir, 10.9 inches.

Mr. Britt: The upper or lower Lone Star Tunnel?

A The bulkhead was closed and there was no water flowing from the lower on February 2--- Oh, yes, there was. There was some flowing. I beg your pardon. I have just come to that now. 15.05 inches from the lower tunnel. The bulkhead was only partially closed, or it might be that it had leaked around the bulkhead.

Measured Cucamonga Springs over weir 8 and found47.5 inches.

Measured the water taken by the Cucamonga Water Company from the Eady Tunnel, 33.3 inches.

Also, the water taken by the San Antonio Water Company from the Eady Tunnel, 34.54 inches. The bulkhead was regulated so as to decrease the discharge of that tunnel to the amount given.

My next measurements were made on November 22, 1900. On that date I obtained a measurement at Box C, measuring all of the pumped water from the 16th Street wells, 356.00 inches. That was made up as follows, giving the separate wells individually:

| | |
|---|---|
| Well No. 1 | 55.5 inches |
| Well No. 2 | 79.95 " |
| Well No.3 | 76.8 " |
| Well No.4 | 90.1 " |
| Well No.7 | 57.85 " |

That totals 360.2 inches, which shows that the two measurements check within 5.8 inches, taking the individual wells and adding them up and checking against Weir C. The error is only 5.8 inches.

Q And these individual measurements you gave were all taken at the individual wells?

A At the individual weirs at each well. I consider the check remarkably close, considering that there might be slight fluctuations in the quantity discharged by pumps.

Measured the water pumped by Sunset Water Company, 45.17 inches.

Water pumped by Cucamonga Water Company at its well K, 22.57 inches.

Measured Weir 5, Lone Star Tunnel which was pumped water, 47.38 inches. This water is the upper Lone Star ~~xxxxx~~ Tunnel.

Measured Weir No. 7 in the lower Lone Star Tunnel or the 35-acre tract tunnel, which is gravity water, 48.17 inches. I have a note that there is from half to three-quarters of an inch from the China Cienega , and Y Tunnel dry.

Measured the Cucamonga Springs over the Stock Division Box and found 33.64 inches.

Also at the mouth of the Lady Tunnel measured the following quantity going to Cucamonga and Ontario respectively: Cucamonga Water Company, 84.1 inches

San Antonio Water Company and Ontario Power Company, 250.00 inches. Those were all the measurements of water on that date. The other measurements were of levels in wells.

The only other measurements I made out there were made on March 15 when we accompanied the Court and attorneys to the ground.

~~xx~~ Q Mr. Trask testified to those.

A I don't think he covered quite the entire field. Those that he testified to checked mine.

First is the water discharged by the San Antonio Water Company into the Cucamonga gravels, 491.0 inches; and the Y Tunnel, 22.11 inches; and th Cucamonga Springs, 50.19 inches. Making a total on the east side flowing water, 72.3 inches from the Cucamonga Springs and Y Tunnel.

Then in passing over the bridge to the west of the Red Hill

on the return trip to Ontario, I estimated that of the 491 inches which was being distributed on the Cucamonga gravel a about 1 inch was running under that bridge. I didn't make a measurement because the quantity was so small that I could easily estimate it.

This concludes all the measurements which I have, and I have tabulated them with some explanations so that-- I have tabulated them and totaled them so that the respective amounts on the west and east side from the wells can be read off in a column, with some explanations in regard to the location of the weirs etc. I think a measurement would hardly be intelligible without these tabulations being made a part of the record. While these tabulations do not cover all of the measurements which I have testified to, they cover all that can be totaled for the sake of comparison.

Mr. McKinley: We offer those tabulations.

Mr. Britt: We would like to have a little time to examine these.

Mr. Haskell: Do these tabulations contain the figures you have just testified to and none others?

A They contain none others, but they do not contain all that I testified to, because they are scattered measurements which have no value for comparison and I do not include thosein the tabulation.

Mr. Britt: We would like until to-morrow morning to examine these.

Mr. McKinley: We are offering them as part of the examina-

tion. Counsel can cross examine all they want to.

Mr. Britt: I don't think they can produce a long list of measurements without any authentication more than was given.

Mr. Haskell: We object to the evidence or tabulation as being irrelevant, incompetent and immaterial.

The Court: I suppose if you object to the tabulation your objection will have to be sustained.

Mr. Britt: I don't know that we would have any objection to it, but we would like to have time to examine it.

The Court; The objection is sustained, and you can have all the time you want to.

Mr. McKinley: I recognize that the ruling is correct and I don't take any exception; but it would apply to all the tabulations of the plaintiff.

Mr. Britt: We agreed that tabulations would be very convenient and desirable to have.

Q What observations have you made besides the measurements in the Red Hill vicinity?

A I have made observations of wells to determine the water plane, and I have also made observations of the features relating to the geology and hydrographic conditions in general.

Q, Did you observe the cienegas there?

A I did.

Q State what observations you have made in them and give the descriptions of them at the different dates as far as you can.

A The first observation I made in the cienegas was in '97 when I was on the ground-- that is, any close observation.

I had seen the cienegas in years previous, but not so as to observe them with any particular degree of accuracy. At that time I observed the cienegas which were then much larger than they were in '99 when I again saw them. but not as large as they had formerly been, as was evidenced by the dry ground which showed the vegetable discoloration, attesting the fact that it had been formerly a cienega. Then in '99 the cienegas were examined by me carefully at various times during the various times that I have testified to when I made measurements there, and showed a very large shrinkage from the year '97. The area wasn't much more than one-third ~~in 1897~~ of what it was in '97 when I again saw them in '99; and ever since I have known those cienegas they have been shrinking from year to year until the last three years, when they have been expanding again to some extent. Within the last year they have expanded quite materially. The cienegas on the east side, that applies to. Those on the west side have remained dry as they were, ~~xxxxx~~ when the Lady Tunnel drained the formation after cutting through the ~~xxxxxx~~ clay into the gravel.

Q State what if anything you observed as to the cienegas which you refer to as being dried up, if any of them were dried up when you saw it first.

A When I first saw them they were dried up to a considerable extent compared to what they had been in years previous, and that process continued down to 1905, and since then the cienegas on the east side have been becoming more moist each year.

Q State whether you have made a measurement of the wat-

er elevations at Well No. 3 and other places?

A I have.

Q Will you proceed and give the measurements of the water elevations?

A I have a tabulation here of all the water elevations measured by me in well no. 3, and this tabulation is made in connection with the discharge of the Y tunnel and Cucamonga Springs on the same date. I tabulated it to save time.

Q They are all your own measurements?

A Yes, sir.

Mr. McKinley: We offer that tabulation in evidence.

A There is only one measurement not my own, and that is made by Mr. Trask and already testified to-- I beg your pardon. There are two made by Mr. Trask and testified to already.

Mr. McKinley: We offer that in evidence

A Cucamonga Springs and Y Tunnel in one column and Well No. 3 in another.

Mr. Britt: There is no objection to this tabulation other than this: That the plaintiffs object to its being received as evidence of more than the opinion of the witness on matters stated in defendants' maps. Tabulations of water elevations and discharge is the heading. Measurements showing the existence of relation between Hydraulic Head at Well no. 3 and Y Tunnel and Cucamonga Springs.

Mr. McKinley: We will concede that the caption is only the opinion of the witness.

The following is a copy of said tabulation:

Tabulation of Water Elevations and Discharge Measurements Showing the Existence of no Relation between Hydraulic Head at Well No. 3 and "Y" Tunnel & Cucamonga Springs.

| Date | Elevation of Water in Well No.3 of San Antonio Water Co.in feet above Sea Level. | Discharge from "Y" Tunnel and Cucamonga Springs in Miners' Inches,4" Pressure | Observers |
|---|---|---|---|
| Mch.15,1899 | 1397.2 | 213.45 | F.C.Finkle |
| Feb. 4,1900 | 1403.25 | 174.28 | F.C.Finkle |
| Aug. 6, " | 1379.60 | 152.20 | F.E.Trask |
| May 7,1904 | 1348.50 | 13.88 | F.C.Finkle |
| July 29,1905 | 1346.30 | 7.41 | F.C.Finkle |
| Sept.19,1907 | 1368.50 | 31.58 | F.C.Finkle |
| Jan. 9,1908 | 1376?20 | 39.80 | F.C.Finkle |
| Feb. 2,1908 | 1378.60 | 47.50 | F.C.Finkle |
| Nov. 22,1908 | 1338.40 | 33.64 | F.C.Finkle |
| Dec. 26,1908 | 1371.80 | 33.10 | F.E.Trask |
| Feb. 20,1909 | 1378.80 | 33.38 | F.E.Trask |
| Mch. 15,1909 | 1382.10 | 72.30 | F.C.Finkle |

Q Have you other measurements of elevations.?

A I have the elevation of water levels in well no. 7, which is Haskell Well No. 1, which I have tabulated in connection with the discharge measurements of the Y Tunnel and Cucamonga Springs, giving the elevation of the hydraulic head in this well above the lowest outlet of the Cucamonga Springs, and the square root of this hydraulic head, and also the calculated discharge of the Y Tunnel and the Cucamonga Springs, based on the hydraulic head at well no. 7. all tabulated on this one sheet.

Mr. McKinley: We offer this tabulation in evidence.

Mr. Haskell. We object to any square root of the hydraulic head as being incompetent , irrelevant and immaterial.

The Court: I would like to know myself just what we have to do with that. What does it stand for?

A The experts of pl intiffs have testified that the hydraulic head of these wells regulated the discharge of the Cucamonga Springs.

The Court: This is for the benefit of the other experts?

A It is to negative the theory advanced by the other experts and for the benefit of the Court, to have both sides before it.

Mr. McKinley: Q Giving your opinion as to the effect of this tabulation as an expert, proceed to explain what it means:

Mr. Britt: We object to this tabulation on the ground that it is immaterial and irrelevant, and secondly, unintelligible.

(Question read)

A. This tabulation, which is headed as follows: Table showing data collected as to water elevations in well no. 7 of the San Antonio Water Company, discharge of Cucamonga Springs and Y Tunnel, and discharges required to correspond with hydraulic head at well no, 7. it is made up as follows: The first column is headed "dates" which gives the date at which I observed the elevation of the water in well no, 7, the flow or discharge from Cucamonga Springs and Y tunnel; the second column is headed "discharge of Y Tunnel and Cucamonga Springs in cubic feet per second" These are the discharges I measured, given in cubic feet per second for convenience in calculation. If they are to be reduced to miners inches, multiply by 50. The hydraulic head at well no. 7 above 1285. feet elevation in feet. That is the third column. That column gives the difference between the elevation of the water in well no. 7 and the lowest point at which the Cucamonga Springs discharge into the pipe. In other words, the hydraulic head from that well to the Cucamonga Springs, if they were in direct contact in that manner. The fourth column is headed "square root hydraulic head at well no. 7 in feet" is obtained because the statement that the discharge varies with the hydraulic head is incorrect as a proposition in physics. The discharge, if any, varies as the square root , and not directly as the hydraulic head. Therefore I have extracted the square root and placed it in this column. The firth column gives the discharge of the Y Tunnel and Cucamonga Springs as calculated from the hydraulic head at first observation

from December 13, 1899, in miners inches under a four-inch pressure. That is a calculation based upon the law of falling bodies and the Torricelli theorem of the discharge of water, which can be verified in any work on physics or hydraulic engineering. And taking our basis as December, 13, 1899, I calculate by this law of physics what the flow should be if it corresponded to the hydraulic head in this well. I have given these figures as the result of my calculations. I made this calculation carefully, having ~~xxxx~~ verified it by going over it twice, and I know that the figures are correct. The sixth column is headed "discharge of Tunnel from Cucamonga Springs as measured on dates given, in miners inches under a four-inch pressure. The column gives the actual measurements which I have testified to and which I made myself on those dates. And the seventh and last column gives the elevation of water in well no. 7 above sea level in feet. That is an explanation of the tabulation.

Q What opinion do you deduce--

Mr. Haskell: Do you offer this tabulation in evidence?

Mr. McKinley: No, I haven't yet. I did a while ago, but I withdrew it.

Q What opinion do you deduce from the matters shown by that tabulation as to the relationship between well no. 7 and the discharge of the Cucamonga Springs?

Mr. Haskell: We object to that question as irrelevant, immaterial and incompetent, immaterial as asking the witness to draw a deduction from testimony not now before the Court.

Q Will you state what elevations you have measurements of of well no. 7 above sea level?

A On the 13th of December I measured the elevation above sea level and found the water to be 1399.6 feet above sea level in that well. On the 3rd of February, 1900, I measured the water level in that well and found it to be 1391.2 feet above sea level.

On May 7, 1904, I measured the elevation in well no. 7 and found it to be 1347.6 feet above sea level.

On July 29, 1905, I measured the water elevation in well no. 7 and found it to be 1342.4 feet above sea level.

On September 19, 1907, I measured the water elevation in well no. 7 and found it to be1360.4 above sea level.

On January 9, 1908, I made a measurement of the water elevation in well no. 7 and found it to be 1366.9 feet above sea level.

On February 2, 1908, I again made a measurement of water level in well no. 7 and found it to be 1368.8 feet above seal level.

On November 22, 1909, I measured it again and found it to be 1359.73 feet above sea level.

March 15, 1909, I measured it and found it to be 1373.4 feet above sea level.

Q Will you state what amounts of water you found flowing on the east side at the various dates at which you stated these elevations of water?

Mr. Britt: He has stated those things already. We shall not insist that he repeat.

A I haven't statedit combined as a whole. I have given

them so that by combining the Y Tunnel you could add them up and determining them in that way.

Q Have you made a calculation of the hydraulic head of well no. 7 above 1285 feet elevation in feet?

A I have.

Q On the various dates on which you have given the elevations of water?

A I have.

Q Will you state what that calculation is on each date?

Mr. Haskell: We object to that as incompetent, irrelevant and immaterial. As far as the evidence in this case has gone it has no more to do with the facts in this case than a question in logarithms. It is not shown that it has any relation to the output of the Cucamonga Springs or the output of any--

The Court: The hydraulic head?

Mr. McKinley: The whole testimony is that the hydraulic head does have an effect.

Mr. Haskell Not any assumed hydraulic head. He hasn't shown where the springs break out.

Mr. McKinley: The testimony is all in as to that.

The Court: It is part of the main controversy here.

Mr. Haskell: But he has assumed a certain point from which he says a falling body has a certain ratio as the square root, and he assumes that this water at a certain elevation in this well has got a free fall according to the square root to the head of the pipe line---

A I didn't assume that at all.

The Court: The objection is overruled. Plaintiffs except.

A On the third column in the tabulation is given the hydraulic head the outlet of the Cucamonga Springs, taking the difference in elevation between that outlet, which I determined myself and didn't assume--

Mr. Britt: What do you call the outlet of the Cucamonga Springs?

A The place where they are diverted into the conduit, which is the outlet.

Q The 30-inch pipe line which leads to the Creek Division Box?

A Yes.

Mr. Haskell: Do you call the outlet--

Mr. McKinley: We object to counsel cross examining at this time.

The Court: Sustained. Plaintiffs except.

A Above this outlet I find by calculation the following hydraulic heads, taking well no. 7 as the point of control:

| | |
|---|---|
| December 13, 1899 | 114.6 feet |
| February 3, 1900, | 106.2 " |
| May 7, 1904, | 62.6 " |
| July 29, 1905, | 57.4 " |
| September 19, 1907, | 75.4 " |
| January 9, 1908, | 81.9 " |
| February 2, 1908, | 83.7 " |
| November 22, 1908, | 74.73 " |
| Marhh 15, 1909, | 88.4 " |

Q Now is there any calculation by which you can determine whether there is a relationship existing between the hydraulic

Afternoon Session 2 p.m.

Direct Examination of F. C. Finkle, Resumed.

Mr McKinley, Q When we adjourned you had completed giving the square root of the hydraulic head at well number 7: Now, will you state whether you have calculated what the discharge would be of the Cucamonga Springs and the tunnel if controlled by the hydraulic head?

A I have.

Q In what way have you calculated that? How have you calculated it?

A First, the formula for calculating the discharge of any medium through which water is conducted is the square root of the head; it is the square root of 2G , which is 64.4 - 32 means twice the accelleration of gravity,- multiplied by whatever the friction coefficient may be of the particular channel, whether it be an underground channel for underground water, or a pipe conducting water on the surface, or otherwise; and the first step in this operation was to transpose the formula, and calculate the coefficient of friction; and for the purpose of doing that I took the measurement of the 13th of December, 1899, and by transposing this formula, calling the coefficient of friction M

Mr Britt: The question calls for the process and does not call for results.

A Well, I am giving the process now: By transposing the formula as stated, and making that coefficient, for the sake of convenience, M, I was able to calculate what the resistance would be to the direct application of the formula. In other words, if this water were dropping through

free air, the only resistance would be the atmospheric
free air, the only resistance would be the atmospheric impediment, but as it is percolating through the soil, the coefficient is the coefficient of resistance in the soil, and I calculated that by this formula.

Q Now, will you state what results you reached as to each of the dates, beginning with February 3, 1900, and other dates as to which you have given evidence?

Mr Britt: Objected to, not that we have any sort of unwillingness to every kind of evidence, every species of evidence that bears with a reasonable degree of pertinence to the questions under discussion, but we object to a statement of this result on the same grounds which we stated to the reception in evidence of his entire tabulation when offered as a whole, to-wit: That the data assumed by the witness for these computations are not any substantive facts proven in the case, but are themselves theories of which there is no evidence.

The Court: Objection overruled.

Mr Britt: Exception.

Q Stating the amount, which the amount based on the hydraulic head theory would show, and the amount which the actual measurement was on the date?

A The point at which these calculated results are given, is the point at which the measurements of the Cucamonga Springs have always been taken, at the Creek Division Box below, and I have taken that hydraulic head from that point for the reason that is the place where all the measurements have been made, and includes the entire cross-section; the measuring of any other place would exclude a part

of the cross section through which this water was passing; and the results I am giving would relate to that point.

Q. If you determine your coefficient at that point, wherein fact it is not the true point of the coming out, would that have any bearing on the result?

A. That is the true point, because the water has always been measured at that point, and all the water coming out from that point up has been measured, and my coefficient was taken at that point for that reason; to take it at any other point would exclude some of the water; that is the reason I took the hydraulic head at that point.

Applying the coefficient to the dates beginning February 3, I obtain the following results:

Calculated discharge of February 3, 1900, would be 180.85 inches, as against an actual measured discharge of 174.28 inches.

For May 7, 1904, the calculated discharge is 156.85 as against an actual measured discharge of 1[illegible].[illegible]

July 29, 1906, calculated discharge, 132.96; actual measured discharge, 7.41.

September 19, 1907, calculated discharge, [illegible]; measured discharge, 32.58.

January 9, 1908, calculated discharge 1[illegible].6; actual measured discharge 39.8

February 2, 1908, calculated discharge, 160.65; actual measured discharge, 47.3

November 22, 1908, calculated discharge 151.7; actual measured discharge, 33.64.

March 16, 1909, calculated discharge, 165; actual measured discharge, 72.3

All of these figures are given for miners' inches of water.

Q You have heard the testimony of some of the experts here that the hydraulic head is in relation to the discharge of the Springs and Y tunnel: what is your opinion upon that subject based on these calculations?

A The basis of these expert opinions is wrong, for the reason that it assumes that the discharge varies as the head; the correct law is that the discharge varies as the square root of the head, whether a falling stone, or a flowing stream of water, or anything descending by gravity, this relation to the discharge or descent is that which bears a direct ratio to the square root of the head, and not to the head itself; and in stating the theory the other experts who so stated were wrong, in assuming that it should vary as the head; and in comparing the theory with the facts I therefore took the square root of the head in each case, and made the calculations to comply with the natural law as I have stated it, which is universal.

Q State whether you have made a diagram, illustrating your view with reference to this hydraulic head?

A I have.

The Court, Q in your former answer, to see if I understand you correctly, you speak of a certain object as falling through the air, and then you speak of this flowing water, and you speak of the head, as applied to each case; when applied to an object dropping through space, do you mean

by the head the distance from the point the objects starts to the fall to the point where it stops?

A Yes, sir.

Q And in the case of a gravel bed, you mean practically the same thing: that is a vertical line extending from the point from where the water is supposed to start, to the point where it ceases to flow, whether it be directly underneath or to one side?

A Yes, Your Honor: to illustrate by a reservoir: from the surfaceof the water at the reservoir to the bottom of the outflow pipe from the reservoir - that distance measured vertically is the head - the distance through which thefalling body descends, whether it be solid or fluid.

Mr McKinley, Q That is this co-efficient? You might explain that.

A The coefficient is determined experimentally, and the factors necessary for determining the coefficient are the quantity of water emerging at any time, and the head under which it is emerging; having those two factors, you can work backwards and solve the coefficient, which I did; and that gives you the actual resistance to the outflow in this gravel strata; and then applying that coefficient it should correspond with every other discharge, it has relation really is that the head at well 7 regulates the outflow of these springs.

Q By the Court: To carry that out, if I follow you, to carry out the parallel between the water seeping through the ground and the falling stone, we will say, in the air, in the latter case the coefficient would be simply the re-

sistance of the air?

A Yes, sir. And that you would have to determine by taking the actual time in which the stone would descend, and applying that coefficient to your theoretical formulaof the square root of the head into twice the accelleration of gravity.

Mr McKinley: You may proceed now ~~and proceed~~ and produce and ~~pr~~ explain your diagram.

A I would like to put this on the board.

(Diagram placed on board.)

This diagram is entitled, "Hydrograph of hydraulic head at well number 7 (Haskell well number 1) of the San Antonio Water Company: its square root: the measured discharge of Y tunnel and Cucamonga Springs, and their discharge calculated from the first observation of December 13, 1899, by the formula, Q equals $R\sqrt{2GH}$, in which Q equals discharge in cubic feet perm second; R equals resistance or friction factor in earth section, and H equals hydraulic head at well number 7, above 1285 feet elevation at lower outlet of Cucamonga Springs".

Then the two formulae are given on the diagram, the first one being the formula to which I have referred, ~~qzequalszzhzz2gh~~ Q equals $R\sqrt{2GH}$ and R equals $\frac{Q}{\sqrt{2GH}}$

The black line drawn across this diagram represents the elevation of 1285 feet above sea-level, which is the outlet of the Cucamonga Springs where they are diverted into the pipe line, and the point from which the water is obtained, and the measurements made, at weir 8.

The Court, Q Is that an actual or assumed elevation above sea-level?

A According to an assumed elevation; I have taken Mr Trask's and Mr Wright's elevation for that as given by them here in this case. It is based on that datum plane.

Q All the calculations here have been on that assumed datum plane?

A All the elevations of the wells, as well as the elevations on land.

Then to the left of the diagram, and above this line marked 1200 feet above sea-level is a vertical scale, beginning with 0, and then 50 and 100 feet, which is marked, hydraulic head in feet from well number 7; and at each of the dates which are indicated by the years, and a space corresponding in proportion to the time in the year when the measurement was taken, occurring at the bottom of the diagram each year, from 1899 to 1909 is indicated, one space allotted to each month, so that these figures on the diagram are all correlated to the dates on which they were made as shown on the table to which I have testified recently.

Now, taking the matters indicated on the diagram above the line marked 1285 feet above sea-level, the entire blocked portion which is marked for the first one on the left hand side 114.6 feet, December 13, 1899, represents the difference in elevation between well 7 on that date, and the outflow of Cucamonga Springs.

The little red portion of this block or column represents the square root of that head.

And the same is true as relates to all these other dates, giving the hydraulic head of well number 7 above that point, which is nothing but the difference in elevation in feet; on to the last one, which is 88.4 feet on March 15, 1909.

The Court, Q Do all those columns or barber poles represent the same well?

A They apply to the same well, well number 7 of the San Antonio Water Company; and they represent the elevation of water in that well above the outflow of Cucamonga Springs, on all these dates; and the red portion of the column represents the square root of that head, which is used in the formula; now, the coefficient of friction against which the water was traveling was calculated by the second formula:

M equals $\frac{Q}{\sqrt{2GH}}$

The Court, Q What does 2GH stand for?

A G means accelleration of gravity, which is 32.2 and 2G means twice that or 64.4

Mr Britt, Q That refers to a body falling in vacuo?

A Yes, sir. M would be a theoretical formula for a body falling in vacuum; but by taking into account the resistance which the body meets in its descent, that M was determined by the second formula.

By taking the factors which were observed on December 13, 1899, and substituting in the formula, namely, substituting for H 114.6, and substituting for 2G 64.4, and substituting for Q the 187.85 miners inches, reduced to cubic feet per second, which was done by dividing by 50,

And the same is true as relates to all these cases, giving the upstream head of tail water 7 meter that point, which is nothing but the difference in elevation in feet; as in the last one, which is 32.4 feet on March 15, 1900.

The Court, Q. So all these columns or tables were merely for ease?

A. They apply to the same tail, tail water 7 of the Ambosio Water Company; and they represent the elevation of water in that tail above the outlet of Conservation Reservoir, on all these dates; see the red portion of the column represents the square root of that head, which is used in the formula; now, the coefficient of friction against which the water our Lawyling was calculated by the second formula: is equal to

$$\frac{K}{\sqrt{H}}$$

The Court, Q. What does KH stand for?

A. Q means accelleration of gravity, which is 32.1 and K means twice that or 64.4

Mr. Field, Q. That refers to a body falling in vacuo?

A. Yes, sir. It would be a theoretical formula for a body falling in vacuo; but by taking into account the resistance which the body meets in its descent, that was determined by the second formula.

By taking the factory which were observed on December 15, 1899, one constituting in the formula, namely, accelleration for K 114.6, one constituting for H 6.4, one constituting for Q the 127.15 cubic feet, reduced to cubic feet per second, which was done by dividing it by

there being 50 miners' inches to each cubic foot, by solving that equation with those substitutions, we obtain the value of h, based upon the actual conditions existing December 13, 1899.

Now, that known discharge of 137.85 inches is shown immediately below the first column, December 13, 1899, giving the measured discharge at that date, and is shown in miners' inches under a four inch pressure, the scale being 0 at the bottom and then 50 and 100 and 150 and the black line would be 200 if the scale were extended up to that point.

Now, below the black line are two lines, one being a dotted line marked "discharge from Y tunnel and Cucamonga Springs calculated from hydraulic head" , and the second is a black solid line marked "Discharge from Y tunnel and Cucamonga Springs as actually measured" , the calculated results being made for the same dates, on which we have measured results, both of the hydraulic head as well as of the discharge.

Now, if the hydraulic head in well number 7 regulated the discharge of the Cucamonga Springs and the Y tunnel, these two lines should coincide,- one should be on top of the other; but as they depart and vary greatly from each other, this diagram demonstrates that some other condition or conditions foreign to the hydraulic head at well number 7 are responsible for the fluctuations of the discharge from the Cucamonga Springs and the Y tunnel.

The wide discrepancy is shown where at some points, the actual discharge is only 7.41, as on July 29, 1905, whereas

the calculated discharge would really make it 132.90 inches.

And the measurement taken the day we were there with the Court the actual discharge was found to be 72.3 inches, and the calculated discharge from the hydraulic head at well number 7 would have given 175 inches at that time; that is what there should have been there.

This is based on the physical law of falling bodies as modified by the coefficient of friction which that water would encounter if its discharge were regulated by the hydraulic head at well number 7. The diagram, however, demonstrates that the head at well number 7 has no effect on the discharge down there whatever; the discharge varies entirely in a different manner.

The Court, Q Suppose you change your coefficient of friction - could you change it in such a way as to make the lines coincide?

A We would have to change it for each one of the observations to make the lines coincide. You could do this: you could calculate your coefficient of friction by some other measurement, and then calculate the other measurements by that coefficient, and then the lines would still fail to coincide, but they would look different; the coefficient of friction was taken from the first record; I might as well have taken it from the last record, and the diagram would show an equal discrepancy in those lines. The coefficient of friction would not change, because once being determined it could not change, if it was determined from the correct conditions.

The Court, Q Assuming that you had taken the wrong co-

efficient, and thus had the wrong factor for that part of the calculation what would be the result?

A If my coefficient were in error, if I did not solve this formula correctly, this line would be wrong, but I have been careful to calculate that and verify that calculation with extreme care; and I also made calculations of other points, and found it was very different if calculated for theother measurements. The coefficient of friction would always have to be the same, being through the same kind of material always; we would have no right to change it when once determined, any more than to change the coefficient in a pipe when once determined.

The Court, Q Suppose you had allowed too much resistance, what would be the effect on the dotted line?

A The dotted line would show too small a discharge.

The Court, Q As regards the diagram would it be higher or lower?

A If I had allowed too much resistance the dotted line would come lower; the coefficient of resistance is a decimal fraction, and therefore if you increase that fraction it would increase the discharge; if you ~~decrease~~ increase the fraction it would lessen the discharge. But the coefficient is actually determined by experiment, and could not change if your experiment was a correct one.

Q Do you mean experiment in this particular case on the ground?

A Yes, sir; by measuring the hydraulic head at well number 7, and measuring the discharge; those are the two things necessary to determine the coefficient, the same

as in a pipe line, if you measure the head of that pipe line, and measure its discharge, you can calculate its coefficient of resistance.

Q You introduced this morning some measurements and elevations which the reporter took to copy: Have you prepared a diagram illustrating your calculations in regard to the relationship between the well number 3, and the Cucamonga Springs and the Y tunnel?

Mr McKinley: I desire now to offer the diagram in evidence which the witness has already explained.

Said diagram is admitted in evidence and marked

DEFENDANTS' EXHIBIT Z

being diagram as to relationship between Well 7 and Cucamonga Springs and Y tunnel (Finkle)

A I have a diagram here which is based on the tabulation introduced this morning, giving water elevations at well number 3.

Q That is your opinion based upon those measurements as to whether there is relationship between the hydraulic head at well number 3, and the Cucamonga Springs and Y tunnel?

A The tabulation introduced shows that there is no such relationship; that the discharge of the Y tunnel and the Cucamonga Springs, or the east side gravity water, varies in a different manner from the hydraulic head at well number 3, and this diagram which I have is drawn for the purpose of comparing those heads and discharges.

Q You have made the calculations in the same manner as you testified to in relation to the previous diagram?

A No, sir; this is not calculated in the same manner;

this is calculated on the theory that the head itself, not the square root of the head, affecting the discharge, which theory is not correct, but I made this diagram to show that even on that theory , the relationship does not exist.

Q Do you mean to say that this diagram that we are about to offer is made on the theory advanced by the experts on the other side?

A It is made on the theory of the experts of the other side. This diagram is entitled " Graphical representation of water elevation in well number 3, of the San Antonio Water Company and the discharge of water from Y tunnel and cucamonga Springs, showing want of relation between these two phenomena. "

It gives the discharge shown graphically, together with the elevation above sea-level, in well number 3 also shown graphically. The flow or discharge is shown by a scale marked miners' inches under a four inch pressure, on the left of the lower part of the diagram, and is colored blue in columns, above the point marked 0 being the beginning of the scale of miners' inches; above each one of these blue columns is marked the number of inches and decimals of inchs with a sign for miners' inches after it, being two dots and a circle, so that the figures giving the actual discharge are given over each one, as well as the graphical size of the discharge.

Above that is given the date of each discharge, which are not arranged chronologically, because as appears above the arrangement is made on the basis of elevations in well number 3 which are nearly equal to each other, or dissimilar

this is calculated on the theory that the head flows, not the square root of the head, affecting the discharge, which theory is not correct, but I made this diagram in order that even on that theory, the relationship seem not valid.

If we you mean to say that this diagram that we are about to offer is made on the theory advanced by the speaker on the other side?

I. It is made on the theory of the speaker of the other side. This diagram is entitled " Graphical representation of water elevations in well number 2, of the San Antonio water Company and the discharge of water from 1 tunnel and connecting pipeline, showing want of relation between these two phenomena. "

It gives the discharge shown graphically, together with the elevation above sea-level, in well number 2 also shown graphically. The flow or discharge is shown by a scale marked Cubic Feet' inches water 5 foot head pressure, on the left of the lower part of the diagram, and is entered the column, above the point marked 0 being the beginning of the scale of Cubic Feet; above each one of these lines column is marked the number of inches and decimals of inches either the 1/- cubic feet after it, being the 10th and 1 circle, so that the figures giving the actual elevations are given over each one, as well as the graphical view of the discharge.

Above that is given the scale of sea elevations, which are not arranged chronologically, because or simply since the arrangement is made on the basis of elevations in well number 2 which are nearly equal to each other, so that the

to each other when discharges are equal to each other.

On the upper part of the diagram is a scale on the left hand side marked "elevations above sea-level". The elevation of the water in the well is what is represented by red columns; there is no elevation below 1350 feet; therefore I did not extend this scale down any further than that; and the other elevations are marked on the scale 1350, 1360 1370, 1380 and so forth, and the actual elevation of the water in the well above sea-level is given above each of the red columns.

Now, if we start with the first comparison illustrated on this diagram, we find that on the 15th of March, 1899, the discharge on the east side was 219.45 miners' inches, while the elevation of water in well number 3 was 1397.2 feet; then we take the nearest discharge and elevation which we have about that time, which is on February 4, 1900 when the discharge was 174.20 and the elevation in the well was 1403.75, showing that while the elevation of water in the well had risen, the discharge had diminished, showing want of relation between those two factors.

Q This discharge you speak of is known discharge of the Y tunnel and Cucamonga Springs in each instance?

A It is in each instance known discharge of the Cucamonga Springs and Y tunnel; when there is any Y tunnel it is added in, because it is considered a part of the plaintiff's water and flowed on the east side.

The Court, Q Both of those were measured on the same date, according to the respective dates indicated there?

A Measured on the same day, and added together.

Passing to the next group, we have a group of five elevations in well number 3 occurring on different dates, August 6, 1900; March 10, 1909, February 2, 1908, January 9, 1908, and the last one February 20, 1909; these are nearly the same elevations in well number 3; and if the discharge on the east side at the Y tunnel and Cucamonga Springs depended on that elevation it should vary as these do and be nearly the same during all the period. As a matter of fact, however, the discharge on August 6, 1900, was 152.2, while the elevation of the well was 1379.6of the water surface of the well.

On the 10th of March, 1909, the discharge was 72.3, while the elevation of the well was 1382.1 , or higher than it was August 6, 1900, in spite of which the discharge was less than one-half of the discharge on August 6th, 1900.

On February 2, 1908, the elevation was 1378.6, only one foot less than it was on August 6, 1900, while the discharge was 47.5 inches, or less than one-third of the discharge on the former occasion.

Then taking January 9, 1908, the elevation of the well was 1376.2, only 3.4 feet less than it was on August 6, 1900, while the discharge at Cucamonga Springs was 39.4 inches, which is almost one fourth of what it was on August 6, 1900.

Then the last one, February 20, 1909, the elevation was 1378.8 at the well, which is practically the same as it was on August 6, 1900, there being only .8 of a foot difference, and the discharge of the Y tunnel and the Cucamonga Springs was only 33.38, as compared with 152.2 on August 6, 1900.

Now, the others might be taken up and compared with each other, showing that there is in no case any relation between the hydraulic head at that well and the discharge.

Then we pass to the third group of three, which is a case wherein the discharges are almost the same, while the elevation of water in well number 5 is variable, being the opposite of the previous group: December 26, 1908, a discharge of 33.1; November 22, 1908, 33.64; September 19, 1907, 31.58 inches; they all vary by only a few inches.

The elevation of well number 5 on December 26, 1908, was 1371.0, while on November 22, 1908, it was 1334.4, while the discharge at the Cucamonga Springs and the Y tunnel on the two dates varied only .54 of an inch; the hydraulic head varied 35.4 on those dates.

The next elevation is 1368.5 on September 19, 1907, when the Cucamonga Springs discharged only 31.09 inches, or less than it did when the hydraulic head in that well was much lower on the 22nd of November, 1908.

Then there are two irregular items which were not assignable to any of these three groups, on account of the great variations both in discharge and of level of water in the well, that I grouped by themselves for that reason; showing that while there was a slight difference in the hydraulic head between these dates, July 26, 1903, and May 7 1904, there was nearly fifty percent difference in the discharge of the springs. The difference in hydraulic head was only 2.2 feet between the two dates, on the well, and at one time the discharge of the Cucamonga Springs was nearly twice what it was at the other. It was 13.35 at one time,

and 7.48 at the other.

The diagram is grouped on comparative elevations and discharges rather than dates, because the object is to show what relation, if any, there is between the discharge of these waters, and the elevation of water in that well.

Mr McKinley: We offer the diagram in evidence.

Said diagram is admitted in evidence, being marked

DEFENDANTS' EXHIBIT Z2

being diagram as to relationship between well 3 and Cucamonga Springs and Y tunnel (Finkle)

Q How long have you known the wells known as the 16th street wells including in that designation the Haskell well? A The first time I was over at the 16th street well was on the 14th of January, 1899; and that date I measured the depth to water 78.1 feet; the well had just been retimbered prior to that time, that is, the shaft, and there was no pumping from the well; there was a pumping plant there but it was not being operated on that day; that would give an elevation of the water of 1404.5 feet, in the well; and I have known the well ever since that time.

I remember when they enlarged the bore about 1900; there was a new bore made in that well; the early well was a shallow one about 300 or 400 feet deep, with a 9 or 10 inch pipe, and with a shaft; and after the shaft was retimbered and deepened, a new well was bored inside of larger diameter.

I observed the well on all the subsequent dates about which I have testified; this date was the only other date on which I observed it; I did not include it in the diagram

because there was no measurement of the flow on the east side on that day.

Q And the other wells there, what do you know about them.

A In my last answer I was speaking of well number 3 in the present numbering, which is illustrated on Defendants' Exhibit Z2, and I was about to refer to the Haskell well.

Q Well, proceed.

A The first time I ever made any observation on the Haskell well was on the 13th of December, 1899; at that time it was 61 feet to water, which would give an elevation of 1399.5 feet for the water level in that well; at the time of this examination there were three Haskell shafts; there were no drilled wells except in one of them, while there were three shafts, and the water was the same in all of them, 61 feet; and the level of the curb, was practically the same in each one; in what is known as well number 7, there had been a drilled well, which was just drilled prior to that time; and since that time I have known the Haskell well up to the date given in the last measurement, March 19, this year. I have been there at various times and examined it, and measured the ~~xxx~~ depth to water in it, as already testified to, and the water flowing from it.

The other 16th street wells I knew nothing about until they were called to my attention on May 7, 1904; at that time I was employed in this case, and I went there with Mr Frank; and that was the first time I had seen those wells since they were completed; but there were a number of other wells in that neighborhood of which I had data and which I examined.

Q State what other wells in that neighborhood you have examined and have knowledge in regard to?

A Confining this to the Red Hills at this time?

Q Yes, sir; to the Red Hills?

A On the 15th of January, 1899, I examined the shaft which had been excavated by Mr Sourwine, near the east line of the Ontario Colony lands, and found this shaft to be 100 feet deep, and with 1.3 feet of water in the bottom.

Q Can you locate it on the Map Exhibit D?

A That is marked Sourwine Shaft on Defendants' Exhibit D by Mr Trask; it was, as near as I can remember at the place where Mr Trask has marked Sourwine Shaft, being in section 5.

On the same date I examined another well, which was south of the road, and on the north side of the Jordan place; that was 110.4 feet deep and contained no water.

Q Where it is the last measurement of the well state that it is the last measurement and it will save going back.

A I have examined these two wells again at other times, in the future. Again, on March 16, 1899, I examined the same Sourwine shaft, on the east line of the Ontario Colony lands as shown on Exhibit D and measured it 185.6 feet deep, and 1.4 feet of water in the bottom; I have a note here, all way down in course material, as to the material of the well.

Q You say you have a note: That don't mean anything: What was the material?

A The material was boulders, sand and gravel, in which the well was dug all the way down.

I find a note here which I didn't know that I had, relating to the Haskell well number 7, made on April 1, when I was there with Mr Newman; that note says Haskell well, 60.4 feet, curb to water; curb is level with surface; that is dated April 1, 1899; I wish to correct the statement which I made a short time ago , that I did not go to the well before December 13, 1899.

On August 25, 1899, when I was there with Mr Wright, I have a list of the wells on the lands outside of the 90 acre tract, which are involved in the purchase of water by the San Antonio Water Company at that time, and the notes are as follows:

1896 well is 77 feet west of line; that means west of line of 90 acre tract. 1898 well is 17 feet west of line. Number 1 1899 well has water standing 16 feet below top of casing. Number 2, 1899, is 546 feet deep, and flowing into tunnel. This shows that there were then four artesian wells on the land outside of the 90 acre tract, from which the San Antonio Water Company obtained the 120 inches.

Q Now, you say your notes show that: What do you mean?

A Well, I made these notes at the time to remember by.

Q Well, refreshing your memory from the notes, do you mean to say that is the fact?

A I am using the notes to refresh my recollection of the fact as to how many wells there were; I would not be able to remeber it otherwise; these notes were made at the time, for the purpose of enabling me to remember where those wells were.

Q Refreshing your memory by the notes, you do remeber the

things that are stated in the notes do you?

A I do.

The next date on which I have a record of any wells was December 13, 1899; and that date I again measured the depth of water in the Sourwine well, as marked on Exhibit E of defendants, and as being on the east side of the Ontario Colony lands, and west of the Red Hill; and I found that it was 162 feet deep; no water in the bottom; the shaft had caved in since the last measurement on March 15, which I remember from the notes in this book giving that condition.

Also the west 1899 well, or number 1 1899 well, on that date, the distance to water from the surface of the ground - no, from the surface of the ground to the top of casing was 7.7 feet; that was one of the four Stowell wells from which the 130 inches were produced; and it was 25 feet from the surface of the ground to the water in the well, which would make the water stand about 90 feet of the floor of the Sadie tunnel near by.

Then number 2 1899 well, the easterly one of the wells drilled in 1899 was connected to the shaft by a tunnel at that time, and was being cleaned out; they had a well rig over it and was cleaning it out.

The 1896 well, which was the so-called first Stowell well -

Q Number 4?

A Number 4 referred to in this case, was being siphoned into the tunnel, and flowed about 45 inches of water.

And they were then drilling another well on the same

tract, which I called the new 1899 well, number 3 1899 well, being drilled by a well-borer named Beck, and was down 146 feet at that time, and the water was 26 feet below the surface of the ground.

Q What year was this?

A The 13th of December, 1899;

Then on the 90-acre tract - these wells I have spoken of being all outside of the 90-acre tract - there were two wells at that time. The westerly one was flowing into a tunnel, and in the easterly one the water was 14 feet below the top of the casing, and the top of the casing three feet below the surface of the ground. These were the old wells which were drilled in 1887; the east well flowed about one half inch over the top of the seven-inch pipe.

Then I have some notes here of the depth which I measured in what we call the big well on the 90-acre tract of the Cucamonga Water Company; they were then drilling, and had drilled another well there; that was 666 feet deep and the depth to water 59 feet, and the water was 38 feet higher in that well than the floor of the Ladin tunnel, and the water was flowing from the leakages in the pipe or slits in the pipe into the Ladin tunnel. This well is one of the Cucamonga Water Company's wells, a new one that they drilled in 1899.

Then on that date I again examined the Jordan well south of the 90-acre tract, measured 125 feet to the bottom of the well; the well was dry.

There was also another well which was 34 feet deep on lot 6, section 9, township 2 south, range 7 west; that

was also south of the 90 acre tract; and was 34 feet deep; no water.

I have already given the depth to water in the Haskell well on that date as 51 feet.

Now, I have a large number of wells which were examined on the 3rd, 4th and 5th of February, and are all given by the old numbers, but I can locate them on the map as I proceed if you wish me to do that.

Q Yes; better locate them.

A The first one is what is known as the J. E. Davis well, 1050 feet north of Base Line, and 20 feet east of the east line of section 34, township 1 north, range 7 west.

Q Was that on the Sunset property or near there?

A I will locate that on the map; that would be south of the present Johnson well, marked on Exhibit D, not shown on the exhibit; the well was 58 feet deep at the time, and 52.4 feet to water.

Q Now, mark that on the map?

A I have marked that on the map by an X, and J.E. Davis well; it says the well is in fine, red, sandy clay; that is the recollection I have as refreshed by my notes at this time.

The next well visited on that date, February 3, 1900, was well K of the Cucamonga Water Company, which was 67.72 feet to water; that was from the surface of the ground; 68.6 feet from the top of the curb to the water, the curb being slightly above the ground.

Another well of the Cucamonga Water Company, which is known as Well J; it is not shown on themap; it was a dry

well at that time.

Mr Haskell, Q How deep was it?

A 56.2 feet.

Q Where was it?

A It was in that group near the Lone Star tunnel.

Mr Britt, Q Can you mark it on the map?

A Yes, sir; I can mark it approximately; I have no notes that I can locate it exactly by; I have no notes that would enable that to be determined.

Then there was another well, which is Well F of the Cucamonga Water Company according to Mr Trask's method of designating them; that was then being pumped with an air-compressor, 37.6 feet from top of curb to water.

Then there was another well of the Cucamonga Water Company, in that same group, known as Well G by Mr Trask's method of numbering, and in which I have two measurements of water: one inside of the casing, and one outside of the casing in the shaft around it; in that well the depth to water was 32.5 feet in the shaft outside of the casing; and 38 feet to water inside of the pipe; both measurements from the same place - top of the curb.

Another well in that same group, well E, is 45.8 feet to water inside of pipe, and 33.9 feet in shaft outside of pipe.

Another well, known as well H, was 40 feet to water, inside of pipe, and this was being pumped with an air compressor.

Another well known as Well I, on the 35-acre tract, 32.5 feet to water inside of the pipe; and 37 feet in shaft

outside of pipe, both from top of curb. This well had not been pumped for some time.

The next well is Well L, which is shown on Defendant's Exhibit E, 38.7 feet to water, from top of curb.

Also on February 3, 1900, measured Well M which is shown on Defendants' Exhibit E.

Q Do you mean it is marked the same way on that exhibit?

A Yes, sir; marked M; 64.7 feet to water from top of curb.

Q Where is that well L?

A That is on the Lone Star development; it is marked L, at the head of the Lone Star, elevation 1457 feet, 1007, on Defendants' Exhibit E. That is the same well referred to as well number 9 of the Cucamonga Water Company by the plaintiffs, and which they are now pumping regularly in the irrigating season.

At that time I have notes of the different Haskell shafts, one was 65.8 feet deep from top of curb to bottom; no water; that is on the same date, February 3, 1900. That was one of those shafts on the Haskell property which never were bored into wells.

Another one was 65 feet deep; no water.

On that date the Upland Water Company's well was 128.9 feet to water, the Sourwine well on the north.

And the Haskell well number 2, now known as well number 8, was then 67 feet deep, and no water; there had not been any well drilled there at that time; it was a shaft 67 feet deep.

The Haskell well number 1, which is now known as well number 7, was 69.4 feet to water, from top of curb;

that was then a drilled well and had been pumped before that time considerably.

On February 4, 1900, I measured the water in what was known as the Tiburcio Springs shaft, which was sunk near what was known as the Tiburcio Spring, and it was 20 feet to water from the top of the curbing; and the Tiburcio Spring was located near the little Red Hill, west of the Park Hotel; and this well was only 32 feet deep, only a dug well, 35 feet deep; Mr Stowell had pumped from it, and used some of the water in his pipe line to section 16.

What is now known as artesian well number 2, on the west side, that is known as artesian well number 2 by the plaintiffs in their method of numbering here, was 23.45 feet from the top of the well casing to water, on that date.

And the other artesian well on the 90-acre tract, was 14.85 feet to water from the top of the well casing.

Then in regard to one of the 1899 wells on the land lying north and west of the 90-acre tract, the depth to water from the curbing, was 96 feet on that day; and there was a shaft sunk at the well, which was used for working the tunnel, by Mr Stowell; Mr Stowell was then working on that tunnel, extending it, and had a shaft right around this well, which was used for a working shaft.

The other well there, which is known as well number 6, also on the same tract, was 17.1 feet to water, from the top of the curb, and the distance to well number 7, another well which was cut into the tunnel and flowing at the level of the tunnel was only 20 feet; there was about

87 feet difference in the water level of these two wells 20 feet apart.

Mr Britt, Q Do you know what the depth of those two wells were?

A I can't give you the depth of the wells; I can only give you the depth to water; they were the wells known as wells 6 and 7 in the Macpherson suit, and they were only 20 feet apart.

The Stowell number 4, 1896 well, was 51 feet from number 7, and the distance to water in that well was 11.75 feet from top of post in northwest corner of shaft; so the water in that would stand over 85 feet above the tunnel 71 feet from the tunnel. The siphon was not working that day, being air-locked, being the same date which referred to my measurement in the tunnel when the siphon was not working.

And in well number 7, 71 feet from this well, the depth to water was 105.55 feet.

Mr Britt, Q That was cut into the tunnel was it?

A That was cut into the tunnel.

There was a well that we call number 10 in this case, on that tract, well marked well number 10, 1899, on Defendants' Exhibit 2, in which it was 64.8 feet to water from top of well casing.

On that date I visited the Jordan well and measured it again, 118 feet deep and no water.

And I also visited a well near the Base Line, on the old Haskell place, which is not any of the Haskell wells, referred to here, but an old well that had been used by the

Haskells, I think for domestic water, or something, and I found that that was 37.8 feet to water from top of curbing at that time. That was the first well ever put down on the Haskell place by Haskell himself.

And the well on the Haskell place now known as number 7 was 68.7 feet to water.

And I also went to the Rubio well, which is known as well number 6 in this case, and found it 64.4 feet to water and 81.4 feet to bottom of well from the surface of the ground.

And well number 3 of the 16th street series as now numbered, at that time called well number 1, was 79.35 to water from top of casing, at an elevation of 1483.6 feet above sea-level; this would make the elevation of the water, 1403.25 above sea-level, would be the elevation of the water at that date.

The Chinamen's well on the east side was 23.4 feet to water from the top of the curbing; that had been used by the Chinese for pumping water, to irrigate that cienega, or that which was formerly a cienega on the east side.

Mr Britt. Q What was the total depth of the well?

A I don't know.

On the 17th of February, 1900, I measured the depth to water at a well owned by Lyman Stewart, on 4th street, 1100 feet west of Mountain Avenue, on the south side of 4th street, 298 feet from surface of ground to water; that is in the Ontario Colony;

Also the King well, on A street in Ontario, 1000 feet west of Mountain Avenue, 207 feet to water - pump not

running; when the pump was running the water pumped from the well was 12 inches.

Those complete my list of wells, except those which were introduced by Mr Trask, and which were taken with him, and those which I introduced this morning myself.

Q In the tabulation of well elevations of 16th street, there was an elevation of February 2, 1908, introduced by Mr Trask: State who made that measurement?

A I made that measurement.

Q Have you checked it up with your measurement, the one that was introduced here?

A I checked it up with Mr Trask's table and found that he introduced it correctly.

Q In accordance with your taking of it?

A Yes, sir; I have the notes right here, and I checked up his table, and he introduced it correctly as I took it. I gave him the figures before he wenton the stand.

Q State whether you have examined all or a portion of these wells to determine whether they were artesian or not.

A I have; those that I have spoken about, I have examined them with that in view.

Q What wells do you know of your own knowledge are artesian?

A The wells, which are located on the 90-acre tract, belonging to the Cucamonga Water Company are all artesian; the wells that are located at the head of the Radio tunnel off the 90-acre tract are all artesian wells; that is, the wells drilled by Stowell, and the Ontario Power Company and others, which flowed into the Radio tunnel, outside

of the 90 acre tract. Also the wells at the Lone Star tunnel, on the 35 acre tract, on the east side are all artesian from my knowledge; these are the only ~~xxxx~~ ones I know are artesian from my own knowledge.

Those which I know are not artesian from my own knowledge are well number 3 on 16th streetand well number 7 on the Haskell placeknown as the Haskell well number 1; The other wells I ~~xx~~ don't knowfrom my own knowledge, and all the ~~xxxxxxxxxxxx~~ information I have is the testimony introduced in this case.

Q Now, from the testimony which has been introduced in this case, what have you concluded as to other wells being artesian or not?

Mr Britt: We object to that as not being a proper subject for expert evidence; that there is no testimony in the case from which a conclusion may be adduced, and further that the wells to which the attention of the witness is directed are not identified, and the question is entirely too general.

The Court: It seems to me that is too general; sustained.

Q What is your conclusion as to other of these wells in that vicinity being artesian?

Mr Britt: To which we make the same objection.

The Court: Overruled; but I think the witness should specify the wells and state upon what he bases his conclusion

Mr Britt: Exception.

A The first well about which I have reached a conclusion from the testimony is that of the Upland Water Company, known as the Nourwine well north of Base Line; Mr Dillman

of the 30 mere level. Also the walls at the lone Star tunnel, on the 30 mere level, on the west side are all stained Iron by inspection; there are the only seam once I have are stained Iron by our inspection.

Does which I have not stained Iron by our inspection are well number 3 on 1500 structured well number 7 on the Bandoll plantation as the Bandoll well number 1; the other walls I do not's questions by our inspection, as all the Kaskaskia Iron information I have is the testimony introduced in this case.

Q. Now, from the testimony which has been introduced in this case, what have you conclusion as to other walls being stained or not?

Mr Smith: We object to that as not being a proper subject for expert evidence; that there is no testimony in the case from which a conclusion may be deduced, and further that the walls to which the attention of the witness is directed are not identified, and the question is entirely too general.

The Court: It seems to me that is too general; sustained.

Q. What is your conclusion as to other of these wells in that vicinity being stained?

Mr Smith: To which we make the same objection.

The Court: Overruled; but I think the witness should specify the wells and state upon what he bases his conclusion.

Mr Smith: Exceptions.

A. The first well about which I have reached a conclusion from his testimony is that of the Cypress Water Company, known as the Fourteen-Hundred-Foot Lime; or Gilman

testified that from 348 to 350 feet there was a raise of water in the well when it was drilled, when he gave the log of the well, and on that testimony I classify it as an artesian well.

The next is Sunset well number 2, to which Mr Cousins testified, as to the log, and he gives in the log the fact that from 300 to 320 feet they were in water gravel, and had an artesian raise.

Sunset well number 1, of which the log was kept by Mr Stinchfield, and is given in the record - I am not sure whether he gave it or Mr Cousins gave it, but at a point between 842 and 886 feet, there was a 9 foot artesian raise of water in that well, according to the testimony.

Mr Britt, Q Whose testimony was it?

A I wouldn't be positive whether it was Mr Cousins or Mr Stinchfield, but I think it was testified to by Mr Stinchfield; it might have been Mr Cousins.

In the Old Settlers' well, the testimony was that the artesian raise in that well was 20 feet; when the well was started the water stood 72 feet below the surface in the shaft; that is the surface water stood there; when the artesian water was struck, it raised to 52 feet below the surface in that well.

Mr Haskell, Q Who testified to that?

A I have no note as to who testified to that; but I think it was Mr Cousins or Mr Stinchfield; it occurs in my notes here of the testimony, and I can look that up if you wish it.

Then wells number 1, 2, 3, 4, 5, and 8 of the 16th Street wells, and Haskell well, basing my conclusion on

the general testimony given by Mr Leeke and Mr Trask, and the logs of those wells, shown on Defendants' Exhibit K, I am of the opinion that they are not artesian but surface wells.

Those are all the wells about which I am able to express an opinion, except Mellman well number 2, which the testimony of Mr Stowell seems to classify as an artesian ~~wd~~ well; and I have also seen that well flow into the Y tunnel, which would indicate that that was an artesian well.

Mr Britt: We ask that the testimony of the witness, expressing an opinion that the Upland well is artesian, basing it on the testimony of Mr Dillman, be stricken out, because it is not a proper subject for expert testimony; it is for the Court to detemine from the evidence; so with reference to sunset well number 1 and Sunset well number 2; and so wih respect to the Old Settlers well; as to all of those the repetition of the testimony of the witnesses, who were cited by the witness now testifying, does not add to or detract from the conclusion which the it is for the Court to draw, from the testimony of the witnesses on that subject.

The Court: The motion is denied. (Subsequently granted). *

Mr Britt: Exception.

The Court, Q I want to ask the witness to explain just what he means by an artesian well.

A An artesian well I understand to be one in which when water is encountered, first as surface water, which we always do in starting an artesian well, and then proceed down with the well, until we tap other water, and that the water

thus tapped will rise higher than the surface water.

Q In other words, it is a well in which there is water under pressure?

A Water under pressure, so that when the strata is tapped confining it, that it will rise above the surface water.

Q The pressure causing it to raise?

A Xxxxxx Causing it to raise above the surface water; if the water which is under pressure rises above the surface water when it is tapped, showing that it has a separate source, it is classified as an artesian well.

Mr Britt: I now desire to make a similar motion with regard to wells 1, 2, 3, 4, 5 and 6 of the 16th street and Haskell wells, on the ground that the testimony of the witness as to his conclusion or opinion, based on what other witnesses have stated here, has not a sufficient basis; and on the further ground that it is not a proper subject for expert testimony in any event, and it is for the Court to draw the conclusion from the testimony adduced on that subject.

The Court: In view of what the witness has testified in response to my questions, I don't know but what it would be the better plan to grant this motion, and also the previous one, which was denied. This motion and also the previous one which was denied will be granted, and that testimony will be stricken out.

Mr McKinley: We are satisfied with that; we think there is sufficient testimony for the Court to determine.

Q To what xxx extent are you acquainted with the river-

along from the various canyons, extending from the San Antonio Canyon easterly, Cucamonga, Deer and Day Canyons, and the smaller canyons between?

A I have been employed professionally a great many times in connection with those diversions; and I have for over 20 years observed the diversion of surface and underground water from those canyons, by means of conduits and tunnels, and its application to the soil for irrigation, in Ontario, Cucamonga and Etiwanda; and also the small diversions in between which are made by local tunnels for diverting the waters of the watersheds between those points, and the use of them for the cultivation and irrigation of the lands.

Q Well, proceed and describe them.

A The San Antonio Canyon is diverted by means of -,

Q Does that affect this question under consideration?

A It contributes partly to the gravels.

Q Has the diversion been increased from the canyon?

A I think it has.

Q Well, proceed then?

A That tunnel has been extended since I first knew it, and the power plant in the canyon has been constructed, to conserve the water, and give it, and the requirements of the colonies which use that water have been greater, and they make a more thorough diversion than they did in early days when I first knew the canyon; that has continued up to the present time; the most recent change being in 1902, when the power plant was constructed, which saved some 19 percent of loss in the canyon formerly existing.

Then the Cucamonga Canyon, since I first knew that

alone from the various oxygens, namely: first one atomic oxygen combined, [illegible], then one atomic oxygen, and the smaller oxygen atomicity.

I have been employed professionally a good many times in connection with mines overseas; and I have for over 20 years observed the [illegible] of [illegible] underground water from hard [illegible], by means of [illegible] and [illegible], and the application to the soil for irrigation, in [illegible], Germany and Africa; and the small [illegible] between which [illegible] for [illegible], the salary of the [illegible] [illegible], and the [illegible] for the [illegible] [illegible] of the [illegible].

I will, gentlemen [illegible].

1. The Gas Atomic Oxygen is [illegible] by water or [illegible].
2. Some [illegible] which [illegible] [illegible] [illegible].
3. It contributes [illegible] to the growth.
4. Has the [illegible] been [illegible] from the oxygen?
5. I think it has.
6. Well, proceed then.

A [illegible] has been [illegible] when I first [illegible] it, for the power plant in the [illegible] was [illegible] [illegible], to conserve the water, and also it, for the [illegible] of the [illegible] which was [illegible] [illegible], and then made a [illegible] discovery [illegible] [illegible] did in early days when I first [illegible] the oxygen; that is a [illegible] to the present time; the [illegible] [illegible] [illegible] in 1908, [illegible] the power plant was [illegible], which [illegible] [illegible] 15 percent of [illegible] in the oxygen formerly existing.

Then the [illegible] oxygen, when I first [illegible]

the tunnel has been constructed; the old flume and ditch which diverted that water to Ioamosa prior to about 1890 has been converted into a closed conduit; prior to that time there was a ditch and flume in the gravel which lost a great part, probably half of its water, before reaching the Ioamosa Colony; and since that time the tunnel has been constructed, and the cement pipe put in, which conserves that water, and takes it down to the Colony, and there the growth of the orchards, and the additional planting of orchards has made additional demands on the water, so that much more has been used than when I knew it first in 1887.

Q Where did the water go that was lost?

A That water went principally to feed the artesian wells in the vicinity of the Red Hill, as it was water which would sink near the foot of the mountains, and enter the artesian formation, and in that way would also supply the cienegas in and about the Red Hill. More careful use of that water, and conducting it away to the orchards, and using it by means of careful cultivation has diminished the amount of water which was so supplied to these formations.

Q Well, proceed with the other canyons?

A Then the Deer Canyon which is used by the Hermosa Water Company,- there were diversions made from that prior to my knowing it, but the orchards were young, and a large part of the time the water was not used fully, and crude ditches were used for conveying it; in recent years the water has been carefully diverted, and conserved, and applied to the lands, so that there is none left except during heavy

flows to sink into the gravel.

Q You speak of sinking into the gravels there: What in your opinion became of that water sinking into the gravels at that point?

A A portion of the waters of Day Canyon that would sink at the foothills would contribute to the east side of the Red Hill,- to the artesian and cienega formations in that neighborhood.

Q And by the cienegas, you include the springs?

A I include the Cucamonga Springs and Y tunnel, and Lone Star, and all of those water developments and sources on the east side which are in that artesian formation.

The next canyon is Day Canyon, which when I first knew it, was diverted in a crude way for a portion of the irrigating season, and taken to Etiwanda; but some years back the supply became very short, and the water was carefully conserved, and tunnels were driven, one of which I had considerable connection with professionally while it was being excavated; that tunnel was driven by the Smith Brothers at the mouth of the Canyon, and tapped the underflow, which formerly went down into the gravels, and the water was then conducted away in pipes to Etiwanda.

Q Where did that water going into the gravels there go in your opinion?

A A portion of it would contribute to the East side Red Hills, and to the Cucamonga Springs, and the water sources in that neighborhood.

Q Have you described all of the diversions between there and the San Antonio Canyon?

A I have described all that I can give by name; there are some diversions made by local tunnels and for small ranches to the extent which those require; and those have all been brought about since my knowledge of the country, to the extent of using all the water from those sources, particularly on the east side, as most of the small diversions are east of the Chesmonge wash.

Q What is your opinion as to the effect these diversions have had on the underground waters of the Red Hills, particularly on the east side springs, and Sinnagas and Y tunnel

A They have constantly diminished it, as shown by the measurements we have, and as one would naturally expect since they were waters sinking near the foothills, where the artesian strata are upturned and receive their supply.

Q State whether you have observed any change in the watersheds of the Chesmonge Canyon, and in that region?

A The principal change was the fire which devastated that watershed, about 1900, and the secondary change in the watershed has been caused by some deformation from cutting wood and selling it, along the foothills, and lower part of the watershed.

Q What effect does that have upon the underground waters?

A That tends to create a very much larger flood discharge than existed when the watershed was well timbered; the water discharging in large floods would pass on down below the point where the artesian formation received its supply, and it would prevent the constant and regular percolation of water into the artesian strata where they are upturned near the foothills and receive their supply

of water except for a short period when the floods are flowing; whereas in former times, when the country was well timbered, the flood flow was retarded, and would penetrate the soil, following the roots of the brush and trees into the crevices, and would continue to feed these formations throughout the entire year.

Q What observation have you made of the cuts and tunnels and developments on the east side, and during what period have you observed that?

A My observation of those tunnels and cuts has been practically since they were constructed; I remember when the excavations were in progress I used to pass by there, and I did some surveying work there in the vicinity at the time when they were commenced, and that has continued up to the present time.

Q What effect has that had upon the water supply on the plaintiffs' lands, the cuts and tunnels which you have just referred to in the preceding answer, what effect has that had upon the springs on the plaintiffs' lands?

A The effect of the Y tunnel, and the other cuts made in the cienegas adjacent to it has been to drain these cienegas and withdraw the surface water, which formerly stood near the top of the ground; and it has also had the effect of impoverishing the storage capacity in theformation feeding that cienega, by making an easy outlet through which the water would escape during the winter season and go to waste, instead of being stored up for gradual distribution during the irrigation season; the construction of these cuts and tunnels, in the nature of the Y tunnel, makes it im-

possible to ever restore the condition there, because of the artificial discharge which has been created to withdraw the water, and allow it to escape, no matter how rapidly it is supplied to the formation.

Q State whether such cuts and tunnels had the effect of for a time increasing the amount of water taken from that tract?

A They did, while the formation was being penetrated and opened up, these easier vents were being made, and the water escaping, which was in the nature of stored water, would raise the flow and cause it to increase materially for a short time, after the work was completed; after that the bad effects of these excavations would become apparent by shrinkage in the supply from that time on; and not only was the reserve capacity impaired, but new vents and openings were made from which the water could readily escape in greater quantity during the winter.

Q What have you observed with reference to the wells, pumping plants and developments in the neighborhood of the lands of plaintiffs and at the east side of the Red Hills?

A The developments of the Cucamonga Water Company, on the 36 acre tract, the Lone Star tract, which were originally begun by Mr Stowell, and afterwards transferred to the Cucamonga Water Comonga water company, are in the same strata and in the same formation in which the Y tunnel and Cucamonga Springs existed, and being near to the Cucamonga Springs and the Y tunnel, and in the same formation, and of an artesian nature, these opened up new vents for the water, which formerly went to supply these springs, and the water

which was taken out from these developments was a part of the water formerly supplying these sources.

It is also probable that such wells as the Old Settlers' well, and of the Upland Water Company and Sunset Water Company, have diverted a portion of the water which formerly supplied these springs, or would supply them if not diverted in that manner; as the lines drawn from the canyons to the east, take it from Deer and Day Canyon, and the east side of Cucamonga Canyon, would pass through these developments before reaching the Cucamonga Springs.

Now, we know when formations are laid down by running streams, the materials are deposited in line with the axis of the stream flow, and that the channels which afterwards form the ducts for artesian water, follow that line, and not a line at right angles, or any other angle to the stream flow.

By laying a rule on the map, Defendants' Exhibit P. beginning with Day Canyon, a line drawn from the mouth of the Day Canyon, and passing through the Red Hills, would pass through these developments before reaching the Cucamonga Springs and the Y tunnel, so that whatever water was following the old channels to that point, would be intercepted first by these wells, before reaching these natural water sources of the Cucamonga Springs.

Taking Deer Canyon, and laying the rule on the map in the same way, towards the Cucamonga Springs, you would pass through these developments, and as we know that water passes in these old formations, not transversely to the way they were laid down, but parallel to the way they were

laid down. It is reasonable to suppose if you are in the sameformation and between the source and where its former outflow was if you tap that formation and draw water from it, you will diminish the discharge at the lower point.

Now, you come to the Cucamonga Canyon, and taking the most easterly flow towards these sources, and you will pass through the Sourwine or Upland Water Company's well, before reaching that point; it is not unlikely as long as you are in the ancient formation that these wells, which are also in that formation and nearer the mountains, would tap the channels which lead to the Cucamonga springs, as I stated the water traveling always parallel with the way in which the formation was laid down and not at right angles or transversely to it.

The Court, Q Part of the water found in the vicinity of the Red Hill, in your opinion, is from Deer Canyon?

A That is my opinion, coming through the artesian formation; that is true of Day Canyon also.

Q Your opinion is that water from both these sources comes there?

A Yes, sir; by laying a ~~xxxxxxxxxxxxxxxx~~ rule on themap from Day Canyon, it will be seen that the swing of the arc, which undoubtedly marks the flow from Day Canyon, includes the east side of the Red Hills.

Q What would you describe as the swing of the arc?

A The red lines drawn on the map Exhibit F, and marked in the case of Deer Canyon, 107 degrees, I would call the swing of the arc, which both in ancient and modern times, ever since this mountain range came into existence, has

regulated the flow of that canyon, the discharge of that canyon; it would first flow at one point, and then as the deposits were made, building up the level at that point, it would shift to one side or the other, and these red lines are the limits of that shifting.

Q The red lines on the east and west limit the shifting of the waters?

A The shifting limits, in which the formation was originally built up; the fill of the valley was built up in that manner.

Q And now with reference to the next canyon?

A That is Bay Canyon, in which 114 degrees is marked between those two red lines, showing that discharge from that canyon has swung mostly towards the east side of the Red Hill, very little to the west side.

The Court, Q Those red lines indicating the swing from the different canyons, were those angles determined by yourself or Mr Trask, from your own researches alone, or are they recognized formulas by the engineering profession?

A I think all engineers and geologists recognize the fact that the swing of the canyons is in that way, and it is also referred to in the United States Government Geological Reports; our observation in that regard has been made on the ground; the topography of the mountains about the mouths of the canyons is such, that those are the limits within which the stream might reasonably be supposed to swing in building up its debris cone.

Q Is the angle the same for each canyon?

A No, it is slightly different, depending on the long-

raphy at the mouth of each canyon, and the way in which the rock in place bounds the mouths of these canyons; you take a canyon with the rock in place running at a certain angle, and that would have an influence on the spread of the flood waters during successive periods; by carefully observing the deposits on the ground and the washes, and the formations of these hills, as to their angle at the mouth of the canyon, it is possible to lay down these lines, which are the probable lines followed by the flood waters; to illustrate, we find that the wash of Bay Canyon is today very near the northwesterly limit as drawn here, and a little more building up in the present wash will undoubtedly result in throwing it up to that line, causing it to flow further west than it does now; if we examine the eastern limit, we see the present wash is not so near that, because the wash has been gradually building up higher, and migrated to the west.

The Court, Q You have not exactly answered what I had in mind: You say this was an angle recognized by geologists and engineers, and here on this map we have angles which differ from each other: Is there any curve or formula by which that is determined, or must you go on the ground and use your own judgment from the surface indications which exist there?

A You have to go to the ground and determine it for each case to be accurate; the general statement is made for example, in water supply and irrigation paper number 142, that the arc is ~~xxxx~~ usually less than 180 degrees, and that it must be determined in each case, but nevertheless

it is never more than 180 degrees, and may approximate 180 degrees; in these cases it is materially less than 180 degrees, owing to the topography, as it varies from 107 in Day Canyon to 118 in Cucamonga Canyon.

Q It is also indicated by deposits on the ground and the formation of the surface?

A That is the way to locate it; you have to study the surface, and you have to determine the course which the stream has taken in building its fan or debris cone.

Q What do you find on the ground to assist you?

A The angle of the mountains at the mouth of the canyon, and the deposits on the surface, indicating the points between which the stream has traveled, deposits of alluvial detritus and debris.

Q You have spoken of your general studies of geology: Have you given any particular attention, to studying the geology in this Red Hill section, including the lands of the plaintiff, and all these developments in question here?

A I have.

Q How much attention have you given to that?

A Well, I have given more or less time during the last ten years to that, a little over ten years now, and of these ten years I have conducted those studies, during about seven of the ten years, at intervals.

Q Will you describe the geological conditions existing there and your opinions in regard to them?

A The two formations of which we have any knowledge from surface indications are , in that vicinity I mean, are what I call the early quaternary and the late quaternary,

with possible evidence of the middle quaternary in the Cucamonga Canyon, and the positive evidences of the middle quaternary existing both in the San Antonio Canyon, and in Lytle Creek Canyon, it being doubtful whether you can identify anything, after you pass a little ways west of Lytle Creek as belonging to the middle quaternary.

The two deposits are clearly defined in the vicinity of the Red Hill, the Red Hill formation or artesian formation being in the early quaternary, and that being the first formation that was laid down after the mountain range was lifted up, and when that was deposited the evidence tends to show, without anything to contradict it at all, that the mountain range was about 3000 feet lower than it is at present, and that the rainfall was much more abundant than it is at the present time, and that the mountain range was a newly uplifted terrane, which contained the muds from the sea bottom; it had been in process of formation for a long period, and the result of this combination of factors was the deposit of the alternate layers of fine and coarse material, which we now find in the Red Hill formation; and at the time of that deposition it was laid down on a sloping bedrock bottom, which possibly had a fault line along the present axis of the red hills, an ancient fault line which might have been created there in previous disturbances; the deposition of this formation alternated in coarse and heavy strata, varying with the rainfall, as the evidences of geological history establish the fact that variations of rainfall in those days were as great, or greater than they are today,- the variations of ratio; whenever there was a

light rainfall the fine silts were carried down which formed the close material, and when the heavier rainfall made a heavier discharge, the coarser gravels were laid down in a strata overlying and adjacent to these finer silts; in turn the coarser beds were again covered, by a cessation of the heavier rainfalls, making alternations of old channels covered over by finer silts.

These deposits were made very much in the way which Mr Trask has indicated on Defendants' Exhibit Q, except that I believe the process of uplift along the fault line at the Red Hills was in progress during that time, in a slight degree; during all the time of the deposition of the silts there was a differential movement, lifting up the valley, as well as the main mountain range.

At the close of the early quaternary, which is classified in geology as the pleistocene age, there was a subsidence of the land all over the American continent; that is evidenced from the Atlantic to the Pacific coast; and before that subsidence occurred these early quaternary deposits had been formed; that subsidence which took place in the middle quaternary and is known geologically as the Champlain period depressed that deposited formation below sealevel, and that period was known as the period of freshwater inland lakes; all over the continent we find the evidences of that from one coast to the other; and during that period were deposited the gravels which we find at the mouth of Lytle Creek, near the hydraulic mine, and also the mouth of the San Antonio Canyon has the types of those gravels. That being the shore line, while this present area

was then below still water.

At the close of the Champlain period there was a re-elevation of the entire America continent extending from the Atlantic to the Pacific Coast; and that movement, not only raised the Sierra Madre Mountains to a point 3000 or 4000 feet higher than they ever had been, but also brought up the fold which is known as the Red Hills, and which fold is a continuous chain from the Cucamonga Red Hills to at least as far as Pasadena; and the evidence of this action is found by the fact that we find today, above the plain, in the foothills, the gravels which belong to the Champlain period, and were deposited in the margin of a lake, but had been elevated to a point where they are sometimes four thousand feet above sea-level.

The fold which occurred in this last uplift took place as illustrated in sections C and D, in Mr Trask's diagram, Exhibit Q, and while that was in progress, not occurring at one time but gradually, the newer material or the late quaternary material was laid upon it, as shown on section E on Exhibit Q, and this makes a distinction of a very marked nature, between the two geological formations, between the early and the late quaternary, which are called by Mr Lindgren-hall and Mr Trask, the ancient and the late alluvium, but those are the geological periods to which they belonged - makes a distinction not only between these two formations, but between the waters which percolate through them; the characteristics of the former are artesian under pressure, while in the latter they are merely surface percolating waters, which fill up the basin and empty themselves to the

southwest; the basin lying north of the Red Hill formation has an abrupt slope of the water-plane to the southwest, so that upon this recent formation being saturated, and not taken out by wells, it readily flows to the southwest, to replenish the sources at Chino, and down by the Santa Ana River and further down; while in the ancient formation we have the waters under pressure and confined, so that they continue with great difficulty, and do not readily percolate away; if not developed they have to find their way out by means of springs and cienegas, escaping against great resistance, and without replenishment from rainfall will endure for several years without being lowered abnormally.

I might say that the separation between these two formations was made very distinct by the Champlain period, which deposited the top red clay in still water, and were it not for that subsidence, which was a general one over the entire continent, and particularly marked on the Pacific Coast, there would never be the marked line of definition, between the ancient and the recent formations.

Q What difference, if any, is there, between those formations as to compactness?

A The ancient formation having at one time been submerged has been greatly consolidated, and the clays have had time to weather and decompose, not only on the surface, but also under the surface, so that the only veins which carry any water now are the old gravel strata deposited during the heaviest flows from the mountain.

In applying the word alluvium to these formations, it includes not only the finer silts which constitute the fine

sand and clay, but the coarse gravel strata interlaced through this clay, which may more properly or technically be called deluvium. In applying the word alluvium to the entire mass, I presume Mr Mendenhall did not wish to introduce the two words alluvium and deluvium, but he meant the entire mass composed of the fine clay as well as the coarse strata or channels passing through it.

Q You speak of springs and cienegas: Where are they to be found?

A The springs and cienegas are explainable - -

Q Where are they to be found as between the formations?

A In the ancient formation; because of the easy drainage from the upper formation, on the recent formation it cannot develop springs; and the old formation in which the water is under pressure is the only one which can produce living springs of a permanent nature.

Q Have you a diagram illustrating your views of geology?

A I have enlarged a diagram from Mr Mendenhall's report of water supply and irrigation paper number 219.

Mr Britt: We object to any diagrams from Mr Mendenhall's reports, and we ask that any statement of the witness about the diagram of Mr Mendenhall be stricken out as hearsay.

Mr McKinley: We consent to that; let the witness explain the diagram.

Q State whether this diagram illustrates your views in regard to the geological formation?

A This diagram does illustrate my views, and several of the facts which I ascertained in making my examination of the ground.

Q. You may explain the diagram and the meaning of it?. And also explain what it illustrates, and how it is supported by the various data which you obtained by an examination of the lands?

A. The first or upper part of the diagram is called "Diagramitic section through the Red Hills; A, granitic rock; B C earlier and later alluvium, and hypothetical boundary between them", with a scale of miles given below; the portin marked "A" on the left hand side of the diagram, is a part of the metamorphic rock in place, and forming the San Gabriel or Sierra Madre Range; the portion marked C C has been called in this case the earlier or ancient alluvium, and is what I classify as the early quaternary deposit. At the time of that deposit being made, the bend in that formation did not exist, but it was extending on a sloping plain down the valley to the south before the uplift occurred which lifted the red hill formation at the point called Red Hills and made a fold at that point; and while that was in progress the portion marked B is the product of filling in above; now, the line of the hypothetical boundary, which is called hypothetical because no wells have been bored to determine where that boundary is, except possibly at the tunnel, which I shall explain later,- that hypothetical boundary is the lake bottom of the ancient Champlain period, when the entire subsidence of some thousands of feet took place in the mountain range and formation generally, burying the valley portion under water. The re-elevation of this at the point C, near where the Red Hills are marked, caused the folding of the ancient alluvium, or early quater-

nary deposit, in a line approximating to what I have called the hypothetical boundary between the two formations, and at the time that occurred the crest of the Red Hills was undoubtedly higher than it is now, as it has been denuded by time and washing away, as it was exposed to the elements and gradually washed in both directions; and at the point of the boundary between the two formations, the denudation of the spur of this Red Hill chain has unquestionably caused that mingling of the materials, and not having any definite explorations with which to indicate it, exactly, I have therefore drawn the line as straight; in my opinion from that point on, there is a considerable intermingling from the surface for at least half the distance to the Red Hill, where the denuded material from the Red Hills was mingled with the later detritus brought down by the stream.

The bending of the ancient material had two effects; the first was to consolidate the entire mass on the inside of the radius; as you bend any substance, the inside of the curve is always consolidated by the bending process; whereas the reverse is true if the curve is in the other direction; and when that bend took place at the Red Hill, it undoubtedly opened spaces which the enormous pressure of water would cause springs to appear in.

Water is conducted through this approximately along the lines shown by the arrows, that being along the line of the ancient axis of the stream when the material was deposited, and the water ofcourse follows the course strata, and is confined by the impervious clay bottom overlying it, upon which the later alluvium is deposited. The result of

that condition is that on the north side of the red hill, and in all of the depressions, springs and ciénegas, springs and ciénegas would appear by these confined waters breaking out, and at some points these springs might break out and mingle with the waters of the later alluvium, but in no case could the water of the later alluvium penetrate down, and mingle with the waters from the earlier, and the only intermingling of which there is any evidence is that caused by the escape of springs from the earlier formation into the later later; there was considerable evidence of that on the west side of the red hill in the early days when the water plane in the recent formation was high. On the east side I never noticed any evidence of the permanent intermingling of the two waters, and the only intermingling was after rainy seasons when the recent gravels were saturated all the way down across the Red Hills.

Now, the lower part of this diagram called Section along line of Sucesos or Radie tunnel, is drawn from an inspection which I made of that tunnel in March, 1898, and indicates the dip to the north of the ancient formation through which that tunnel was driven. At the time I first visited thisatunnel, at station 2000 there was a shaft which is shown here that penetrated down to the tunnel; Mr Stowell took me down that shaft, and we went westerly in a branch leading some distance to the west; I went to that point and at that point 80 feet below the surface of the ground was the contact between the ancient formation and the recent; the upper part above that point being the recent fill; and that contact was evidenced by the burrow holes of animals, the

roots of former trees, and well defined clay strata lying with a marked northerly dip at that point; and from that point on the tunnel passed out into the recent formation.

Q In which direction?

A Northerly into the recent formation; from that point up the tunnel is wholly in the recent formation.

The Court, Q The direction of the tunnel is not shown the same on this profile as on the other map?

A No; this is only a profile and does not show direction; the mouth of the tunnel is given to the left and the head towards the right, and I have only shown so much of the tunnel as takes us into the recent formation.

It may therefore be properly said that the Sadie tunnel draws its water from both formations, drawing by artesian wells from the ancient formation, and by percolation from the recent formations above it, the line of contact being well defined at the point where it leaves one and enters the other.

Q Did you notice anything as to the Sadie tunnel receiving water in the old formation?

A The Sadie tunnel received no water from the old formation in passing through it; the old formation was a compact clay or silt, but upon emerging into the new formation it drew waters from that; the only water received by it from the ancient formation was that from deep wells.

Q I think you have some photographs.

A I have some photographs of the Red Hill formation.

Mr Mc. Kinly: We offer in evidence the diagram just explained by the witness, as Exhibit Z3.

Said diagram is admitted in evidence marked

PLAINTIFFS' EXHIBIT Z3

being Diagram of Geologic section, (Finkle).

Q Now, produce your photographs and explain them.

A I have a photograph here which is taken from 19th street, and is taken looking south from 19th street toward the Red Hills, showing the 18th street wells 1 to 5 in gravel basin; I have written that on the photograph.

Mr McKinley: We will offer the photograph in evidence and ask that it be marked Defendants Exhibit Z4.

Q It is a correct representation of the subject-matter is it?

A It is.

Mr Britt, Q It is marked here "Outlet from gravel basin to the southwest" - Is that outlet photographed too?

A The portion of it shown at the arrow is photographed, yes, sir, west of the Red Hills,- the surface of it ofcourse.

Mr Britt: We object to the reception in evidence of the photograph for the reason that it purports to depict imaginary conditions.

Mr McKinley, Q I think you before in your testimony made some reference to an outlet from the gravel basin to the southwest as carrying waters which reappear at Chino, and places in that region: Did you designate where in your opinion that was?

A Only in a general way by saying it was to the southwest of the Red Hills.

Q About where in your opinion is that outlet, as shown on topographic map, Exhibit P.

A That outlet may be said to pass from point marked 18th

street well number 1 in a southwesterly direction to the point marked "outlet" with an arrow on the map.

Q State whether on the photograph which I show you, you are able to determine about where in your opinion the outlet is?

A I am.

Q Wherein it?

A At the point where I have marked an arrow, with the words Outlet from Gravel Basin to Southwest; I have also marked on this photograph "Red Hills" over the summits of the Red Hills.

Mr McKinley: We now offer the photograph in evidence.

Mr Britt: The same objection to that part of it.

The Court: The objection is overruled.

Mr Britt: Exception.

Said photograph is admitted in evidence, marked

DEFENDANTS' EXHIBIT Z4,

being photograph of Red Hills from 19th St, (Pinkle)

Q The photograph I now hand you is taken where?

A This photograph is taken from 16th street or Base line at a point near well number 3, looking south towards the Red Hills, showing the Red Hills in the background, and the gravel and brush in the foreground.

Q Are you able to locate on that photograph the point about where you think the outlet is, that you referred to?

A Yes, sir; on the left hand side of the photograph, at the point where I have marked an arrow and Outlet from gravel basin above Red Hills.

Q It is correct?

A Yes, sir; it is just as taken by the camera ; not retouched or altered.

Mr McKinley: We offer in evidence the photograph and all that is on it, as illustrating his opinion of the place.

Mr Britt: We object to it as unintelligible.

The Court: Overruled.

Mr Britt: Exception.

Said photograph is admitted in evidence, marked

PLAINTIFF'S EXHIBIT #5,

being photograph of Red Hills from 16th street (Finkle.)

Q I will show you this photograph and ask you to explain it?

A This photograph was taken from the elevation at the mouth of Cucamonga Canyon, being a little hill on the left hand side, looking south from the mouth of the canyon.

Q A small hill that the Judge and others of the party climbed on the day of the view, through the brush?

A Yes, sir; the photograph was taken at the time that I went up there with Judge Ester, Judge Britt, and several others; and this photograph is called View of Cucamonga Debris cone, and forking of wash near mouth of canyon; at a point on the photograph where there is an arrow, I marked the words "forks of east and west washes" which is below the eucalyptus trees on the Sontag place.

The Court, Q You say this was the photograph taken from the hill close to the mouth of the canyon?

A Yes, sir; on the 15th of March, this year; this photo-

graph shows where the first forks of the [illegible] wash occur, one going to the easterly and one to the westerly and in the foreground by careful inspection the outline of the Red Hills may be discerned; the day was smoky and cloudy and long distance objects did not make a good impression on the camera.

Q. Mr McKinley: This is a correct representation of the subject-matter?

A. It is a correct photograph; it has not been retouched in any manner; it is just what was impressed on the plate when exposed.

Mr McKinley: We offer the photograph in evidence.

Mr Britt: We have no objection to it for the purpose of comparison by the Court with what was the actual view on that day.

Said photograph is admitted in evidence, marked

PLAINTIFFS' EXHIBIT 26,

being photograph from hill near mouth of [illegible] Canyon (Fickle.)

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Here the Court takes a recess until tomorrow, Friday, April 2, 1909, at ten o'clock a.m.

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